

OPEN-AIR STUDIES
IN BIRD LIFE



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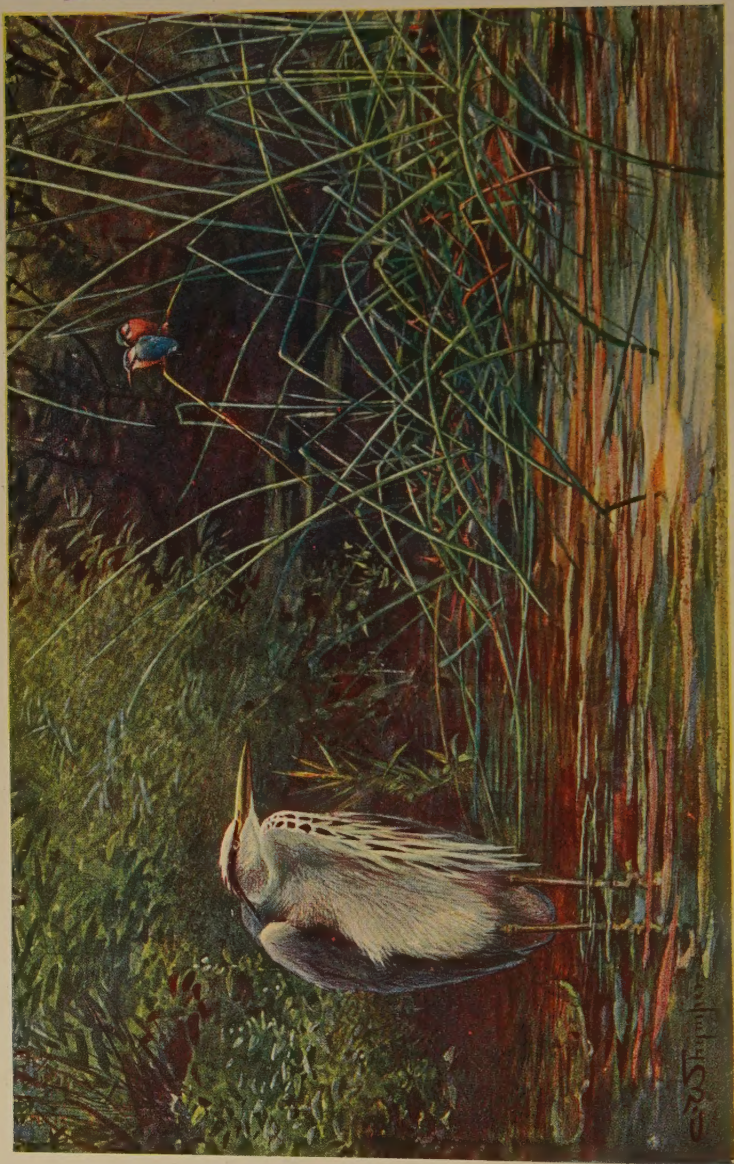
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THE HERON'S HAUNT.
Open-Air Studies in Bird Life, by CHARLES DIXON.

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FRONTISPICE.]

OPEN-AIR STUDIES IN BIRD LIFE:

SKETCHES OF BRITISH BIRDS
IN THEIR HAUNTS.

BY

CHARLES DIXON,

AUTHOR OF "RURAL BIRD LIFE," "THE MIGRATION OF BIRDS,"

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PREFACE

THE present little volume has been written with the express object of furnishing a popular Introduction to the study of Ornithology by visits to British birds in their homes. Almost every bird indigenous to the British Islands has been included, care being taken to introduce it in that special haunt to which it seems most closely attached. But in order to place the study on a comprehensive basis, a few particulars have been added concerning the orders, families, and so on to which the several species belong. These are given as each representative of a new group is reached, and referred to afterwards as other species belonging to that group are noticed. In this way I hope the student may be encouraged to take an intelligent interest, not only in the life history of each species, but in its structure and in the place it occupies in the avine system.

In many ways the student of Botany will find a far easier task before him than he who takes up Ornithology. The botanist can with comparative ease and celerity acquire sufficient knowledge of all the commoner plants to name them, but such information is by no means sufficient or so easily obtained in the case of birds. These volant creatures possess far more diverse faculties and have a much more complex history than a plant. The labour involved in studying the habits and economy of a single bird would be very much more than that required to name

and know by sight a hundred plants. On the other hand the reward is certainly richer, the interest necessarily greater, more extensive and sustained.

I do not claim that the present book is in any way exhaustive; it merely is what its title indicates, "sketches" of British birds in their homes. A finished picture would require many times more space than is available here; all that has been attempted has been to give sufficient information relating to the birds of our country to serve as an Introduction to a wider study of a very fascinating subject.

CHARLES DIXON.

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OPEN-AIR STUDIES IN BIRD LIFE

HAUNT I

THE SPACIOUS AIR

CONTENTS: The Spacious Air—Aerial Birds—Swifts—Swallows—The House Martin—The Sand Martin—Song-flights of British Birds—Pipits and Whitethroats—Sky Lark—Wood Lark—Nightjar—Sand-pipers and Snipes—Moorhens, &c.—Chaffinch—Rooks—Aerial Search for Food—Birds of Prey and Owls—Shrikes—Flycatchers, &c.—Petrels—Aerial Evolutions—Starlings, Dunlins, &c.—The Aerial Drama of Migration.

To specialise the air as a haunt of birds may seem somewhat paradoxical and ambiguous. Popularly that element is regarded as the natural home of *all* birds, the general locality in which such volant creatures pass most of their existence, and not in any sense the special haunt of a certain number only. Most birds, we know, can fly, and therefore are in every way fitted for an aerial life; but some birds fly much more than others—in fact pass most of their waking existence in the air. Of these birds, then, the spacious air is their particular haunt, and it is there alone that we most fittingly make their acquaintance. Amongst British birds the most thoroughly aerial species are comparatively few in number. We have no brilliant gem-like Humming Birds in Britain (or for that matter in the Eastern hemisphere at all, they being a characteristic ornithological feature of the New World). Neither can we number in our avifauna such aerial species as Albatrosses and Frigate Birds, which seldom visit the land except to breed, and were at one time said, quite erroneously of

course, even to perform that function in the air. For many years Birds of Paradise were believed to pass an absolutely aerial existence, in proof of which they were said to be without legs ; but the skins that found their way to Europe formerly had been mutilated by the superstitious natives of New Guinea before bartering them to travellers and Chinese merchants. The large Bird of Paradise, with its specific name *apoda* (footless), will always remind us of this curious error.

Undoubtedly our most aerial species is the **Swift** (*Cypselus apus*). It is the type of a family that can fairly claim to be the most aerial perhaps of all known birds. Significantly, too, the Swifts are possibly more nearly related to the Humming Birds than they are to any other surviving avine species. This fact should increase the interest with which we watch the Swift circling high in air on never-tiring wings. Popular opinion invariably associates the dusky bird with the Swallows, but quite erroneously, and for no other reason apparently than that of the coincidence of an aerial existence. A few words concerning the Swift's family and relations may be appropriately given here before we proceed to glance in greater detail at the British species. The Swifts (*Cypseli*) form a sub-order of the order *Coraciiformes*, in which are also included the Humming Birds. This order contains a very large number of species, presenting great diversity in structure, form, and colour, divisible into no fewer than seven sub-orders. The first of these, *Coraciæ*, includes the *Coraciidæ* or Rollers, the *Momotidæ* or Motmots and Todies, the *Alcedinidæ* or Kingfishers, the *Meropidæ* or Bee-eaters, the *Bucerotidæ* or Hornbills, and the *Upupidæ* or Hoopoes. The second sub-order, *Striges*, contains the Strigidæ or Owls. The third, *Caprimulgi*, includes the *Caprimulgidæ* or Goatsuckers, the *Podargidæ* or Frogmouths, and the *Steatornithidæ* or Oil Bird. The fourth, *Cypseli*, includes the *Cypselidæ* or Swifts, and the *Trochilidæ* or Humming Birds. The fifth, *Colii*, includes the *Coliidæ* or Colies. The sixth, *Trogones*, includes the *Trogonidæ* or Trogons ; and the seventh, *Pici*, includes the *Galbulidæ* or Jacamars, the *Bucconidæ* or Puff Birds, the *Capitonidæ* or Barbets and Honey Guides, the *Rhamphastidæ* or Toucans, and the *Picidæ* or Woodpeckers and Wrynecks. As will be

seen, no less than five of these sub-orders contain British representatives, but broadly speaking the entire order is a strong feature of tropical countries. Of the characters common to the order it is not necessary here to speak, various details being given as the British species are dealt with. In some of their characteristics, especially in the bones of the palate, the Swifts show a somewhat close affinity with Passerine birds (of which the Crow and the Thrush are familiar examples). They form the family *Cypselidæ*, of which there are some fifty species known, divisible into three sub-families, almost cosmopolitan in distribution, but not found in New Zealand. Two of these sub-families are represented in the British avifauna. The most remarkable external characters of the Swifts are their short bill, very wide gape, long scythe-shaped wings, containing ten primaries, and short legs. The Typical Swifts (*Cypselinæ*), of which the English Swift is an example, have a feathered metatarsus and toes, the middle and outermost of the latter having but three phalanges. Our Swift bears a somewhat close resemblance to a Swallow, but may readily be distinguished even in the highest air by its longer and narrower wings, short tail, uniform sombre coloration, and harsh screaming note. Were we to examine the two birds in our hand, however, we should find that the tail of the Swift contained ten feathers only, while that of the Swallow and its kindred has twelve, and that its wing possessed ten primaries, while that of the Swallow has nine only. The formation of the wing bones is also strikingly different, the humerus being remarkably short, and the manus as exceptionally long. We should also find that the Swift's toes are all directed forwards, not like those of the Swallow, three in front and one behind. The group or genus of which our English Swift is typical contains some fifteen species distributed over Europe, Asia, Africa, and South America. Those that breed in northern countries are migratory, retiring southwards in winter, but in Africa and other warm areas the species are sedentary.

With these few remarks upon a very interesting little



HEAD AND FOOT OF
SWIFT (*Cypselus*).

group of birds we will now repair to some quiet country village, on a calm June evening by preference, and endeavour to obtain a brief glimpse into the habits and economy of the British Swift.

"To mark the Swift in rapid giddy ring
Rush round the steeple unsubdued of wing."

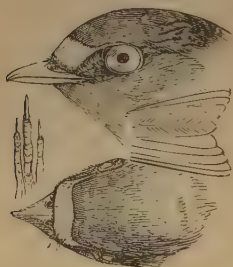
—GILBERT WHITE.

The Swift, as most readers may know, is a summer migrant to Europe, reaching the British Islands amongst the latest of our bird visitors. In the South of England we may expect it during the last ten days of April in small and uncertain numbers, but further north its arrival is delayed until early May. Like most late migrants, it leaves us early, taking its departure in August. Although nowhere quite such a common bird as the Martin and the Swallow, it is widely and very generally distributed over our islands, but becomes rare in the north and extreme west of Scotland, and of only stray appearance in the Orkneys and Shetlands. Although the Swift passes most of its time in the air, it is exceptionally active towards evening, and may frequently be observed searching for food or dashing impetuously about the air long after sunset. Swifts are gregarious, and may be found in many kinds of places, from the rocky coast, where they habitually nest in the cliffs, to the inland districts; they frequent most country towns, especially such that contain cathedrals, and are common enough in and near villages. Shortly after their arrival especially, small parties of these birds are very fond of careering wildly about, uttering harsh screaming notes, one chasing the other, and from time to time sweeping past the holes in which they sleep and rest. These actions are common in the evening, and may again be remarked in the late summer, just previous to the Swift's migration south. As a rule Swifts fly higher than Swallows, but sometimes they may be seen hawking above water or close to the ground in meadows; the finer the weather, generally speaking, the more elevated the flight. Swifts feed solely on small insects, all obtained upon the wing, gnats and midges in the higher air, house flies and small coleoptera nearer the earth. I have seen them chasing small moths above the swathes of newly-mown

grass, and on other occasions feeding greedily on may-flies. These birds seem utterly indifferent to weather. They revel in the rain for hours together, and only the other day I remarked several pairs dashing to and fro at a height of some five hundred feet in a severe thunderstorm. They seem averse, however, to cold and wind, and then seek the most sheltered spots. These birds never perch or alight on the ground, rising from the latter with some difficulty, although able to do so. Swifts are early risers, appearing abroad in the dawn, and continue in the air until twilight, a matter, at midsummer, of nearly eighteen hours of constant flight. The Swift breeds towards the end of May or early in June, making a slight and untidy nest either under a roof (the thatched roof of a cottage is a favourite spot) or in some crevice of the masonry, especially of cathedrals and church towers. In some cases crevices of rocks are selected or the sides of quarries; and these are possibly the original situations before buildings were available. As the Swift never alights, it does not gather its nest material in the ordinary way, but seizes a straw or a feather blown into the air by the wind, or, more frequently, confiscates the nests of Sparrows. It is a flat open structure, and in some cases is more or less coated with the bird's saliva. The two white eggs are very elongated in form; it is interesting to note that the number is the same as that produced by Humming Birds. Swifts when rearing their young do not visit their nests at very frequent intervals, collecting a mass of insects in the mouth before conveying the food to their offspring. Shortly after the young are strong upon the wing, signs of approaching departure are manifest. The birds become even more gregarious and social, and congregate into screaming flocks to migrate, a few days before starting invariably coursing about at vast heights. I may give the 10th of August as the average time of departure.

The **White-bellied Swift** (*Cypselus melba*), a much larger bird, with a white abdomen, is only an accidental visitor to the British Islands. Another species, the **Spine-tailed Swift** (*Chætura caudacuta*), is a still rarer visitor to us from Asia. It belongs to the sub-family *Chaturinæ*, the members of which are characterised by having the metatarsus bare and four phalanges or joints in the toes.

Belonging to this group are the **Edible Swifts** (*Collocalia*) of the East, some of which make the famous nests so highly prized for soup. The birds in the genus *Chaetura* are distinguished by having the shafts of the tail feathers prolonged into sharp points. These birds are, if possible, still more rapid in their flight than the other Swifts, being exceeded, perhaps, by no other known species. The species that occasionally visits our islands breeds in Asia and spends the winter in Australia.



HEAD AND FOOT OF
SWALLOW (*Hirundo*)
TAIL OF MARTIN (*Chelidon*)

Our next most aerial species are the Swallows, of which three species are found in the British Islands during summer. These birds belong to the extensive order called *Passeriformes*, forming the family *Hirundinidae* in that order, and comprise some hundred species. Swallows have long wings, with nine primaries and twelve tail feathers, a small broad and flat

bill and very wide gape, like that of the Swifts, but this is only an analogy, not an affinity, due probably to similar methods of obtaining food. Although their legs are short, the feet are formed like those of other birds in the order, and hence, like them, they are capable of perching. They are very generally distributed over the world, but in high northern or southern latitudes are summer migrants only. All justly claim to be ranked as eminently birds of the spacious air. It is in that element that most of their lives are passed, and it is there consequently in their natural haunt that we seek their acquaintance now.

Of the three British species the **Swallow** (*Hirundo rustica*) is the best known and the most popular. It is the typical member of a genus containing about forty species, all possessing the acutely forked tail (the outermost feathers being narrow and much longer than the rest), which immediately identifies the British Swallow from the two others found with it in our islands. There are few birds more widely known or that figure so largely in tradition and literature of every land. It is the oracle of nature; it was known to the Chaldeans as a bird of destiny, and was the Egyptian hieroglyph of prosperity.



PLATE I.—SWALLOWS FEEDING.

Face p. 7.

Its migrations have received biblical record, and its return in spring is immortalised in olden song, and forms part of the unwritten calendar of many savage races of mankind. It may be seen cleaving the "spacious air" in almost every part of the British Islands between the months of April and September, or even later, and is easily recognised by its steel-blue upper plumage and long forked tail, across which a row of round white spots are conspicuous, as the bird glides close to the ground before us. Although the Swallow perches, or even alights on the ground frequently, it never attempts to progress with its legs unless aided by its wings. It may often be seen sitting upon a roof, a telegraph wire, or the dead branch of a tree, and from such a situation the male very frequently warbles his garrulous little song. The latter, however, is heard to best advantage as the Swallow pursues its erratic way through the air in early summer. It is a somewhat free songster, and warbles at intervals throughout its stay with us, the young males in autumn becoming particularly musical. These individuals may easily be identified, even on the wing at some distance overhead, by the much shorter outside tail feathers. The call-note of both sexes is a shrill *whit*. Swallows, like Swifts, there can be little or no doubt, pair for life. For years in succession the same spots are frequented, and nests are made season after season in the old accustomed sheds or buildings; that they are the same individuals has been proved repeatedly by careful marking. The Swallow spends most of its time in the air; speeding hither and thither on apparently never-tiring wing, threading the narrow roadways, skimming over the daisy-spangled meadows or the open pool, circling round the tree-tops, backwards and forwards along the hedge-side, or soaring upwards into the lofty dome of space with consummate grace and agility. To and fro the entire day it passes, its throbbing wings never seeming to tire or its joyous buoyant spirits to droop. Consorting freely with its own kind, it is also social to a high degree, and associates with Martins and Swifts, mingling with them in mazy crowds in the spacious air, each individual following a chosen course without the least confusion or inconvenience. It is even more ubiquitous than the Swift, town and country seeming to suit it equally well so long as food is procurable. In

fact it would be hard to say where it is not found, for I have met with it in some of the wildest and most isolated spots in the entire British archipelago. Swallows are much attached to human habitations and buildings, doubtless because of the suitable nesting places they afford rather than from any feelings of companionship or social instincts like the Robin; for they will take up their quarters in any outlying building in the fields so long as ready means of ingress are presented. One of the most attractive features about the Swallow is its trustful familiarity during the nesting season. It will make its nest and rear its young in the most frequented spots in outbuildings, on ledges over doorways, above mangers, in porches, or even in lumber rooms. I have always found that the Swallow makes a nest every season, being unlike the House Martin in this respect. Numbers of nests may be found in the same building or chimney, the birds displaying similar social instincts in this respect to what they show whilst flying about in the open. The nest is placed on a beam, on ledges near the tiles, and in chimneys, is formed something like a saucer of bits of mud and straw externally, lined with dry grass and feathers. The four to six eggs are white freckled and spotted with coffee-brown, reddish brown and grey. Those for the first brood are laid in May; for the second in July. As soon as the young are fully fledged they leave the nest and sit about on any convenient perch near by, where for a day or two they are fed by their parents. Then they visit the open air as soon as their wings can carry them with safety, and perch on roofs, dead branches of trees and telegraph wires, still being visited at frequent intervals by the old birds with food. When at last they can follow their parents about the spacious air they do not attempt to feed themselves for some time, but keep with their parents and are fed on the wing, flying up to the old bird at a well-understood note of invitation, and taking the captured pellet of insects with a joyous cry. Even when strong upon the wing the young birds frequently rest and wait to be fed. Perhaps the Swallow becomes most interesting to the naturalist as the still autumn days draw on apace and the birds congregate in numbers that perceptibly increase as time goes on. Certain spots seem well recognised for this annual

rendezvous; the old nesting places are deserted, and the birds roost in trees and reed-beds.

“Gathering Swallows twitter in the skies.”—KEATS.

At last the hour of departure comes, and the great journey south is undertaken during September and October, a few late individuals tarrying even into November. It is popularly and very generally believed that this bird's migrations extend in Africa as far south as Cape Colony, but I believe the individuals that breed in Europe do not in any case pass beyond the tropics, those seen at the southern extremity of that continent during summer in the southern hemisphere never in their turn crossing the tropics to breed in northern latitudes. For further particulars the interested reader may consult my work on bird migration.¹

In much the same localities we may also observe the **House Martin** (*Chelidon urbica*), a bird easily identified as it courses to and fro by its short forked tail, steel-blue upper parts and white rump patch; all the under surface is white. The five species of House Martins are confined to the old world, and are generally distinguished from the Typical or Barn Swallows by their feathered metatarsi and toes. The English House Martin arrives about the same time as the Swallow in spring, the middle of April, or mayhap a few days later, and is widely dispersed over most of the British Islands. It seems not to be so dependent upon man as the Swallow, large colonies existing not only on many parts of the rocky sea-coast, but inland, especially in the northern dales and on isolated cliffs in certain moorland areas. Its habits are very similar to those of the Swallow. It indulges in the same incessant and untiring flight, is quite as, or even more, gregarious, and returns unerringly each season to its old haunts. The Martin, however, is far less of a songster, and only warbles occasionally in a low, subdued voice, usually when perched. Like the Swallow, it frequently perches, but if impelled to move a little way, it does so with an ungainly gait and with uplifted wings. It feeds chiefly upon gnats, flies, and small coleopterous insects, casting, like all its kind, the indigestible portions in small pellets. The House Martins

¹ *The Migration of Birds*. Amended edition, 1897, pp. 207, 208 *et seq.*

begin to show an interest in their old nests almost directly after their return, entering them or clinging to the sites in cases where they have been destroyed during their absence. Those that have a complete nest to build set about the task a week or so after arrival. The outer shell of the semi-globular nest is attached to some wall or cliff, a situation usually being chosen where some projection forms a sheltering canopy, such as an eave, a window ledge, cornice, or jutting piece of rock. This outer structure is commenced at the bottom, formed with pellets of mud, which are placed in position as the Martin clings to the wall partly supported with its tail, and using its chin and bill as a trowel. Building generally takes place in the morning, and but a few layers are added each day (a perfect nest requiring nearly a fortnight's labour), the structure being left to harden before another course of pellets is put in position. The nest thus gradually assumes its hemispherical form, a slitlike opening at the top being left for ingress. This shell of mud, intermixed with bits of straw, is finally lined with dry grass and feathers. Too often a pirate of a Sparrow evicts the Martins and profits by their toil; and the little birds evince a remarkable perseverance in building nest after nest in one spot as regularly as they may be torn down. Numbers of nests are often placed quite close together. I know of railway bridges in the Derbyshire dales where the coping is lined with them, and I have seen them literally in clusters on cliffs on the South Devon coast. The eggs are four or five in number, and pure white, without any spots. As soon as the young are sufficiently grown they may be seen peering out of the entrance, waiting the frequent visits of their parents with food. When they leave the nest they resort to some perch near by for a similar purpose, and when finally strong on the wing are fed in mid-air. The eggs for the first brood are laid in May; for the second in July. As the autumn days draw on apace the House Martins become increasingly gregarious; colony after colony amalgamate and resort to some time-accustomed spot, where the air gradually fills with their myriads. From time to time telegraph wires and other coigns of vantage in the vicinity are densely packed with tired birds, and at night they settle in clouds to sleep amongst

osiers and reed-beds. They begin migrating south in September, the bulk of the birds leaving in October. At this season of the year House Martins are specially fond of congregating near water, and it was this fact that possibly helped to confirm the opinion of some observers that they hibernated or buried themselves at the bottom of pools during winter.

Our third indigenous British Swallow is the **Sand Martin** (*Cotyle riparia*), the smallest and by far the plainest in coloration. It is another thorough bird of the spacious air, spending most of its waking hours in flitting to and fro in ceaseless quest for food. Sand Martins are distinguished from the House Martin group of the Swallow family by their nearly square tail, and bare metatarsus and toes. I should mention, however, that the basal portion of the hinder part of the tarsus is decorated with a small bunch of minute plumes. Some nine species are known, confined chiefly to Europe, Asia, and Africa, but the British Sand Martin is also an inhabitant of America. The Sand Martin is one of the most soberly coloured of British birds, brown above and white below, with a brown collar. It is the earliest of the Swallows to reach us in spring, sometimes appearing at the close of March, more frequently during the first week in April, and if somewhat local, is found in all parts of the country, even as far north as the Shetlands, but I did not find it in St. Kilda. It frequents the vicinity of earth cliffs, banks, sand-pits, quarries, and railway cuttings, and is as much at home on the coast as in inland localities. Of the three species it is by far the slowest on the wing, its flight being more or less hesitating, fluttering, and butterfly-like, and yet it is able to keep the air all day without a rest if necessary. Like the Swift, it is late to retire to roost, the latest of the Swallow tribe, and may frequently be seen abroad in the dusk searching for flies with bats for its companions. It is also more regular in its methods of hawking for food, passing to and fro along a certain beat for hours at a time, sometimes just skimming above the ground, at others at a moderate height. From the time of its arrival until the young of the second brood are strong upon the wing, which is close upon the autumn migration, the Sand Martin may be seen at intervals entering and leaving its

breeding places. Indeed, it seems to keep closer to them throughout the period of its stay than either of the other British hirundines. The Sand Martin is seen less near man's dwellings than any of the other Swallows, the presence of earth cliffs and water being two of the chief essentials. Our little Sand Martin becomes most interesting during the season of reproduction. This differs considerably from that of the two preceding species, for the bird digs out for itself a tunnel in the cliff or bank, male and female doing their share of the excavating. This underground gallery may sometimes be a winding one—especially if such obstacles as a stone or a tree root are encountered—but is usually nearly straight, sloping upwards, and several feet in length. At the end of the burrow, which is some three or four inches in diameter, a small chamber is formed, in which, on a slight nest of dry grass and feathers, four or five white eggs are deposited. Sand Martins are gregarious throughout the summer, and many pairs of birds tunnel into the same cliff or bank. All the holes, however, are not tenanted; many of them are disused, although the birds return yearly to the same haunts, and in some cases use their burrows for several seasons in succession. The young are fed and tended in the usual Swallow-like way, the food consisting of gnats, flies, and coleopterous insects. That the young are fed upon the wing by their parents I have many times observed, although curiously enough Gilbert White seems never to have noticed the fact. The Sand Martin is the least musical of the British Swallows, and only utters a short, rambling song at rare intervals; its ordinary note is a harsh twitter, but even this is by no means frequent. Vast quantities of Sand Martins congregate in autumn previous to migrating south, having certain well-recognised gathering places. Many of these large flocks roost in reed-beds and marshy plantations close to the water, over which they have spent the day in restless quest of food. It is a somewhat remarkable fact that Sand Martins are seldom or never seen consorting with House Martins and Swallows, although, as we have seen, the latter birds freely associate with each other, especially in autumn. There is a perceptible migration south of Sand Martins over the British Islands in August, but the greater number of our indigenous

birds leave towards the end of September, a few lingering into October.

There are many other species that may fairly claim to be recognised as birds of the spacious air, although their haunts are not quite so exclusively confined to that element as those which we have just described. They must receive passing notice here if we reserve the more detailed examination of their habits and economy for later chapters. These what I may term semi-aerial birds resort to the air for a variety of special purposes, amongst the most important being display or song during the love or pairing season, the intermittent capture of or search for food, and the performances at stated intervals of a variety of curious manœuvres, gyrations, or evolutions, the precise object of which is somewhat problematical. Although the aerial love performances of British birds are not so elaborate as some that certain exotic species indulge in (conf. *Curiosities of Bird Life*, p. 91 *et seq.*), a few of them are intensely interesting. Some of the most pronounced of these are intimately associated with song. Most observers, for instance, must have frequently remarked the short aerial flight of the **Meadow Pipit** (*Anthus pratensis*), the dusky little creature fluttering upwards for thirty feet or so, and returning to earth warbling as he comes; or the more stately performance of the **Tree Pipit** (*Anthus trivialis*), which usually starts from some elevated perch, such as the bare branch of a tree, the flight being accompanied by song both in going and returning. We ought also to name the **Rock Pipit** (*Anthus obscurus*), which soars and sings in a similar manner; but this, the largest of the indigenous Pipits, is found only on the rocky sea-coasts. Then the several species of British **Wagtails** (*Motacilla*) occasionally indulge in short fluttering movements as they fitfully warble a low yet pleasing little song. The Wagtails, however, are all coy singers, so that the observer who chances to hear them may consider himself fortunate. The **Whitethroats** and some other of the **Warblers** (*Sylvia*) are more or less aerial songsters, and undertake short flights of a fluttering butterfly-like character to utter their music. But of course our most familiar (and also most famous) example of birds coming within the present category is the **Sky Lark** (*Alauda arvensis*),

whose towering lofty song-flights are much too familiar to every reader to require very detailed notice here. Who has not watched, with a repetition that never savours of monotony, the warbling Lark fluttering upwards and upwards, higher and higher into the limitless cloud-flecked dome of blue sky, and listened with delight to the wondrous melody growing fainter and fainter as the tiny musician recedes from earth, or with increasing pleasure remarked the ever louder strains as the bird floats downwards again

“Sprinkling music from the sky” (MACKAY),

until like a falling stone with warblings hushed he buries himself amongst the herbage? Little less famous, but nothing near so widely known, we have another beautiful aerial songster in the **Wood Lark** (*Alauda arborea*). This local species is also given more to warbling when at rest than the Sky Lark, and he seldom rises to any vast height to sing, but by way of compensation his melody is richer and sweeter in tone than that of the commoner species, and at the same time, if not so loud, is quite as (or even more) continuous. As White has so happily described it—

“High in air and poised upon his wings,
Unseen, the soft enamoured Wood Lark runs
Through all the maze of melody.”

Like the Sky Lark the Wood Lark is almost a perennial songster, and may be heard at all times except in the few weeks of the moulting season. Then again the **Goatsucker** or **Nightjar** (*Caprimulgus europæus*) utters its love notes and calls whilst passing through the air, combining business with pleasure I should say, because he hunts the air for food in a way similar to the day-flying Swallow. This note is only heard whilst the bird is in flight, and may be expressed by the syllables *co-ic, co-ic*; the churring noise so characteristic of this species being uttered, so far as my experience extends, solely when the Nightjar is at rest on some branch or other perching place. Not all readers may possibly be aware that song flights are very prevalent amongst the Sandpipers. These soarings are strictly confined to the love season, the male birds mounting upwards

on fluttering pinions for a short distance, and returning to the ground uttering a more or less musical trill. Few of these birds breed in the more accessible portions of the British Islands or indeed within their limits, the best known being the **Common Sandpiper** (*Totanus hypoleucus*), the **Redshank** (*Totanus calidris*), and the **Dunlin** (*Tringa alpina*). Here must also be mentioned the very interesting aerial gambols of the **Common Snipe** (*Gallinago scolopacina*). (Conf. p. 110.) Snipes are, as a rule, most skulking birds; but as soon as the springtime causes them to think of nesting duties the male birds discard their shyness for a time, and mounting at intervals into the spacious air above their haunts, fly to and fro, and when descending make a peculiar sound widely known as “drumming” or “bleating.” Snipes may thus be seen in the air at all times of the day, but most commonly towards evening, rising to a height that sometimes extends beyond the reach of human eyesight, uttering a *chick-chac* as they go. When the zenith of the flight is reached they descend with amazing speed with wings and tail outspread, the rush of air through these apparently making the drumming noise. Sometimes the birds come right down to the ground; at others they stay their impetuous descent, the drumming ceases, and they fly to and fro, often in circles, uttering the love cry only. The “roding” of the **Woodcock** (*Scolopax rusticola*) is an analogous performance, but not so aerial, and will be noticed in detail later on (conf. p. 78). Incidentally I may also mention that some of the Rails are in the habit of flying about in circles above their marshy haunts, uttering loud-sounding notes at intervals; but as these movements usually take place at dusk or even during the hours of darkness, they very frequently escape notice. The **Moor Hen** (*Gallinula chloropus*), the **Water Rail** (*Rallus aquaticus*), and the **Coot** (*Fulica atra*) may be instanced; whilst the **Stone Curlew** (*Edicnemus crepitans*) is a by no means infrequent nocturnal aerial wanderer. I may also draw the reader’s attention here to the soaring love flights of the **Chaffinch** (*Fringilla cœlebs*). Two rival males may frequently be seen rising for some distance perpendicularly into the air, pecking and buffeting each other as they go, the black and white wings

giving the performance a very pretty appearance. Time after time this will be repeated, varied by occasional visits to the nearest tree to utter an outburst of glad defiant song, or possibly the chasing of one bird by the other in perfect fury through the branches. Other aerial movements, but not connected with love, song, or courtship, are the downward flights of Rooks, the birds dropping from great heights to ground below them in a perpendicular course, the back and breast being alternately presented to the observer. This action is widely known as "shooting," and in some country places is said to foretell high wind, but there can be no doubt is only indulged in for the purpose of making a direct descent from the air. The **Jay** (*Garrulus glandarius*) may very frequently be seen dropping into the woodlands in a similar way.

We have now briefly to consider certain aerial movements undertaken primarily, if not exclusively, for the purpose of searching for or capturing food. These movements are common to a great many by no means closely related species. Passing over the lofty aerial sailings of the Vultures, birds which are unknown in our islands save as the rarest of visitors, and reserving a more detailed description of those of the British Eagles for a later chapter, we will first of all notice those of the **Kestrel** (*Cerchneis tinnunculus*). This charming little Falcon is by far the commonest of its order in our islands, and may be met with almost everywhere. It is easily identified by its curious flight, as it poises and hovers with expanded tail and fluttering wings from time to time in its progress across the countryside. This peculiar flight is undertaken for the purpose of closely scanning the ground below for mice and such "small deer," and when one of these creatures is discovered the bird drops silently down and generally succeeds in seizing its quarry. The careful observer will notice, especially if he be provided with a good field-glass, that the hovering Kestrel frequently lowers its legs as if about to strike, and during flight these are carried tucked away under the tail, just as is the way with Gulls, Waders, and Herons. Many other birds of prey fly about the air as they scan the ground below in quest of food, some of the most remarkable being the Harriers, of which there are three British species. All

are comparatively rare nowadays, but we shall have something more to say about them shortly. The peculiarity of their flight at these times is that it is taken in a most methodical manner, the birds passing backwards and forwards many times over likely ground at a moderate height very deliberately, and dropping down with seldom failing skill upon mice, frogs, lizards, &c. Harriers will quarter a field, a swamp, or a hillside as carefully as a trained dog. Then the **Buzzards**, of which there are several indigenous species, hunt for most of their food whilst beating about the air; and the aerial movements of the **Kite** (*Milvus regalis*) are graceful and most impressive. Both Kites and Buzzards have a habit of ascending to vast heights in circles, and will frequently cross wide tracts of country in this spiral manner. At other times their actions in the air partake of a hovering character like those of the Kestrel. The **Owls** are also much addicted to systematic flight in quest of food, but as they are chiefly nocturnal, these movements are not readily remarked.

Passing on to the smaller Passerine birds, we find several the aerial feeding habits of which are most pronounced. Amongst these we may specially mention the Shrikes, one of which is a fairly common summer visitor to England. This is the **Red-backed Shrike** (*Lanius collurio*). Shrikes are in the habit of sitting on some convenient spot, such as a dead branch or the top of a bush, from which they start forth at intervals to chase and capture passing insects. The **Flycatchers** (*Muscicapa*), of which two species are summer migrants to us, feed in a very similar manner. Then the **Whinchat** (*Pratincola rubetra*) and the **Stonechat** (*Pratincola rubicola*) very often indulge in aerial chase of insects. I have repeatedly watched the latter species rise to a height of fifty yards or more, and then fly hither and thither to catch small insects. The pretty little **Redstart** (*Ruticilla phoenicurus*) behaves in a very similar manner, whilst many of the **Warblers** (*Sylvinae*) habitually catch their prey in the air. Then again the **Nightjars** (*Caprimulgidae*) are aerial feeders and catch their food during flight, flying to and fro in the evening's dusk just like gigantic Swifts or Swallows. Even still more interesting are the **Bee-eaters** (*Meropidae*), for they are day feeders, and glide and circle

to and fro in the bright sunshine, hawking for flies and other winged creatures. Not one of these gaudy birds, however, is indigenous to our islands, although the **Common Bee-eater** (*Merops apiaster*) is an accidental visitor to them in summer. I saw much of this beautiful bird when in Algeria, and was greatly impressed with its graceful, buoyant actions in the air.

Among other groups remarkable for aerial feeding we have the **Petrels** (*Procellariidæ*), of which several species are British. These birds are in the habit of fluttering above the sea in quest of food, and some of them at their breeding places exhibit great powers of wing, the Fulmars especially. It is to this order that the Albatrosses belong. Another remarkable bird that spends much of its waking existence in the air is the **Gannet** (*Sula bassana*). It may be seen on many parts of the coast during the non-breeding season soaring at a vast height in the air above the sea or at a lower elevation, when actively engaged in fishing, ever and anon dropping like a stone into the water to transfix some unfortunate fish. Lastly, the **Gulls** and **Terns** (*Laridæ*) may fairly claim passing notice here, for they not only search for much of their food in the air, but pass a great deal of time in that element. Of the two groups the Terns are by far the most aerial, and have not inappropriately been termed "Sea Swallows," their long forked tails increasing the significance of the title.

Our last class of aerial movement deals with those curious evolutions in which certain birds engage when massed into flocks. I will not attempt any explanation here of these remarkable gyrations, but the precision and exactness with which they are performed always seems to me as being little short of marvellous. Beginning with the best known species first, we may briefly glance at those indulged in by the **Starling** (*Sturnus vulgaris*). The Starling, as I need scarcely say, is one of our most familiar native birds. Odd individuals may be seen searching the air like Swallows, but these massed movements are not undertaken until the Starling gathers into flocks as soon as the young are reared. Some of these flocks of Starlings are of immense size, composed of thousands of individuals, which, after the breeding season, like so many other birds, rendezvous at certain well-recognised spots,

and resort time out of mind to favourite roosting places. It is near these common roosts that the aerial manœuvres of the Starling are most readily observed and most interesting. Towards sunset the birds often, for no apparent reason, rise *en masse* into the air, the entire flock wheeling, spreading out, or closing up as if animated by a single impulse. Now the mighty host almost disappears for a moment, or as quickly shows out black against the sky as the light happens to fall upon it; then it spreads out like some vast net or cloud of smoke, waving, trembling, and poising in the air, and finally swooping down and alighting in reed-beds or on trees with the most astonishing precision. Each day these wonderful movements are gone through, and generally about the same time. Many shore birds may also be noticed going through a similar performance, one of the most common species to indulge in it being the **Dunlin** (*Tringa alpina*); another is the **Ringed Plover** (*Ægialitis hiaticula*). I have seen flocks of both species, composed of many thousands of birds, manœuvring with a precision that the most highly-trained troops might have envied, but could not possibly have equalled. When at St. Kilda years ago I observed, much to my astonishment, vast flocks of **Puffins**, like mighty swarms of bees, circling about some of the highest peaks, each bird keeping its allotted place without the least trace of confusion. Personally, I think these avine evolutions are amongst the most wonderful sights the bird world can display. The fact is all the more noteworthy when we bear in mind how so many other species congregate into companies equally as extensive, yet make not the least effort at combined and simultaneous movement. We shall have occasion to allude to these sub-aerial species in much greater detail in later chapters.

There is one other aspect of bird life in the spacious air that requires notice before the present chapter is brought to a close. This is the great aerial drama of Migration, the coming and the going of those winged hosts in spring and autumn that constitute the most impressive phenomenon in the bird world. During these two periods many birds, that at all other times are more or less arboreal or terrestrial, become absolutely aerial, leaving their retreats in thickets or amongst herbage in

which they have spent a skulking, retiring existence to rise into the spacious air and to wing their way north or south, according to season, to far distant spots. Of course it is quite impossible in the space at my disposal here to enter fully upon the enticing subject of migration; the entire volume could easily be filled with its attractive wonders alone. All that can be done is briefly to direct the observer to the close scrutiny of the spacious air during the more active portions of the migration season—say between March and May in spring, and from August onwards to the close of October in autumn. Between these dates many journeying bird pilgrims may be detected winging their way across the heavens, and at night beneath a star- or moon-lit sky the impressive cries of migrating birds will proclaim that the grand movement is in progress far overhead. To enjoy these observations fully the observer must make himself thoroughly familiar with the call-notes of the migrating birds, and then he may read what is taking place across the sky in darkness almost as well as at noontide. Writing of these migrating birds at night, Gätke says: “Suddenly the wide silence is broken by the solitary cry of a Song Thrush or the clear call of a Sky Lark, followed by another short interval of silence. Then as suddenly the silent night is broken by the distant cry of a Blackbird, soon followed by the notes of a passing flock of Sandpipers. Soon the cries of the Sky Larks increase in number, as smaller and larger flocks approach and pass on. The hoarse note of the Snipe, accompanied by the more musical call of the Golden and Grey Plovers, and the wild, far-sounding cry of the Curlew break the stillness, mingled with the notes of the Redwing and the Fieldfare. Next by the sound of hundreds of rapidly repeated cries a long extending swarm of Knots is recognised in the darkness, hastily pursuing its journey, accompanied by an incessant din of countless piping, rattling, and quacking voices unknown to gunner or fowler.” This more particularly applies to Heligoland, but very similar phenomena may be remarked in many parts of the British Islands. Some species are astonishingly regular and may be looked for almost to the night. One of these is the **Whimbrel** (*Numenius phaeopus*), flocks of which pass north regularly over England in May, easily identified

from the earth below by their expressive cries, resembling the syllables *tet-ty, tet-ty, tet-ty*, quickly repeated in a musical bubbling tone. Thus in many places the bird is commonly called the "Titteral." Another species of equally regular passage is the **Bar-tailed Godwit** (*Limosa rufa*), which arrives so punctually in the south of England that the 12th of May is called "Godwit Day." Many other instances might be given, but the student will not fail to remark this exactness when he comes to record season by season the movements of the migrant birds in stated localities. Many stirring scenes may be witnessed in the spacious air during daylight in the seasons of passage. More especially do these remarks apply to the eastern sea-board of England, where sometimes for days together the air is crowded with Sky Larks migrating into England in October and early November. Flock succeeds flock in apparently never-ending succession, and at night the stream of birds still continues to pass on unchecked by darkness. Then in this locality may be witnessed the arrival by day of the **Hooded Crow** (*Corvus cornix*), in parties, straggling flocks or lonely individuals, making the passage of the North Sea to reach their winter quarters in the fens and elsewhere. Vast numbers of other species will be from time to time detected, all too numerous to be described in detail here, but all sufficient to show the spacious air as a pathway of the migrant hosts. Then the student may be fortunate enough to get a peep at another act in the aerial drama of migration should he visit some lighthouse at night during favourable weather conditions (best learnt locally). There may he see from time to time (in autumn especially) the drifting clouds of migrants seething round the beams of light, dazed, lost, and bewildered, dashing themselves against the gleaming glass, falling exhausted into the sea, or renewing their onward course to distant destinations as soon as the weather clears and becomes more propitious for the journey. Here at these spots on such nights as these the curtain is, as it were, lifted for a moment and the wondrous drama of the air is revealed in all its profoundly interesting impressiveness. It shows what must be taking place beyond human scrutiny under more favourable circumstances high up in the star-lit sky, when perhaps but

a faintly sounding chorus of cries alone indicates the passing of the feathered hosts.

Still one more aspect of the spacious air, from an ornithological point of view, may claim the briefest allusion. That is, in winter time especially, the passing to and fro of many kinds of birds in quest of open feeding grounds. Here it may be a vast flock of **Lapwings** are seen breasting the snowstorm and winging their way beneath the grey skies above the snow-shrouded countryside. Their noisy companies of **Fieldfares**, *chack-chack*ing as they go, cross the dismal-looking fields, or hosts of **Redwings**, **Bramblings**, and **Starlings** from time to time wing their way in full retreat to more congenial quarters. Flocks of **Geese** or **Ducks** in the form of V's or W's imprint themselves in bold relief against the sky, or perhaps a huge **Swan** with deliberate wing-beats passes over.

I trust that sufficient has now been said to give distinctness to the spacious air as a special haunt of bird life, possessing features of its own, and displaying sights and sounds seen nowhere else in Nature. It is, as we have seen, the chosen home where certain birds pass all or nearly all their waking hours; it is the arena chosen by some in which love battles are fought, love concerts are sung, love preliminaries are conducted. It is the hunting-place for sustenance of some; the manœuvring theatre of others; whilst at certain seasons it forms the grandly spacious, yet trackless, pathway of migrants, many of which are seldom seen to cross its lofty dome at any other period.



HAUNT II

THE OPEN FIELDS AND DOWNS

CONTENTS: The Sky Lark—Pipits and Wagtails—The Whinchat—The Corn Bunting—The Corn Crake—The Partridge—The Red-legged Partridge—The Quail—The Rook—The Jackdaw—The Starling—The general bird life of the fields—The Wheatear.

ALTHOUGH the fields are a general haunt of a great many species, the birds that absolutely stamp them with their individuality are comparatively few in number. Birds commonly resort to fields to feed, returning to other haunts when hunger is satisfied; and to a great extent the crops and the stage of their growth determine the kinds that are to be met with. Then again the season of the year forms another important factor, for in many localities species are seen at one period which it would be simply impossible to find at another. There is an exclusive charm about our fair British fields and pastures found in no other land, an irregularity in outline, of generally moderate acreage and usually bounded with hedgerows of rare luxuriance and beauty, studded with grand old trees, and presenting a most diversified series of growing crops. All these factors tend to encourage bird life, and are conditions for its favourable increase. Discarding the hedgerows round them for the present, with their wealth of avine life, we will now briefly glance at those typical field-birds that the student can scarcely fail to meet with on meadow, pasture, and fallow.

Perhaps the most prominent bird of our British fields is the **Sky Lark** (*Alauda arvensis*). It is by no means absolutely confined to these localities, and may be met with on open ground almost everywhere from the coast to the bare untilled moors and uplands remote from the sea. But for our purpose now we are concerned only with the Sky Lark as we see it on the fields. This Lark forms one of a family (*Alaudidæ*) of Passerine birds, numbering

upwards of one hundred species and races, all of which are distinguished by having the *back* as well as the front of the metatarsi scutellated. By this character alone the student may readily tell a Lark from a Pipit, although they bear a very close resemblance to each other. The Sky Larks (*Alauda*) are distinguished from other members of the family by their long wings, minute bastard or first primary, very long and straight hind claw and somewhat small and slender bill. They are all birds of the Old World (although the English species has been introduced into North America), chiefly found in temperate regions. The species found in England ranges across Europe and Asia to Kamtschatka and south to Algeria (where I have heard it singing as sweetly as in our own country), Egypt, India, and China. It may not be generally known that the Sky Lark is a great migrant. It literally pours into the British Islands from Europe in autumn, and must rank as one of the most numerous of birds. Wherever they are found Sky Larks are highly prized for their beautiful music, and are caged in China as commonly as they are in England. We have already had occasion to allude to the wonderful soaring song flights of the Sky Lark, so that we need not do more than give them a passing allusion here. Its voice is the most familiar music of the fields, the seldom absent accompaniment to a stroll across such spots. We may note the little brown bird rise fluttering from the clover or the meadow grass, from the growing corn, or in early spring from the fallows; no great choice is displayed, all are suitable, provided the herbage is long enough to conceal the precious nest. In winter time preference is given to such fields as have been sown down with clover—old stubbles amongst which seeds of many kinds are procurable. The student will not fail also to remark that this bird is much attached to certain spots, the most elevated fields in the vicinity by preference, and here it will remain the winter through. From autumn onwards Sky Larks live in flocks which, when feeding, scatter far and wide over the ground. They are somewhat skulking birds, very difficult to detect amongst the herbage, and often remain until nearly trodden upon before rising with a musical double call-note. If disturbed, the birds may be

watched fluttering into the air here, there, and everywhere, the scattered individuals soon joining into a compact flock which frequently circles about for some time before settling again. They are hardy birds, no weather being severe enough to drive them from a favourite haunt, except a heavy fall of snow. This speedily sends them off to the nearest open country, but they invariably return to their old quarters with the thaw. During winter odd Larks from time to time soar and sing, but as the spring advances the flocks break up and scatter over the fields in pairs to breed. At this season the male bird becomes very demonstrative, and often warbles in a delightful manner whilst hovering above his mate a few feet in the air, or when chasing her to and fro across the fallows on the ground. The birds are now often seen on land which is being tilled, running about the newly-turned soil in quest of worms and grubs. These birds I should say never hop, and very seldom indeed perch on trees or hedges. Their food consists largely of small seeds, in addition to the foregoing, and to a less extent upon grain. The nest for the first brood is generally made in April, and is always made upon the ground in the open fields, a field of mowing grass or growing grain being preferred. It is simple enough, being made of dry grass, straws, and roots, and lined with finer grass roots and horsehair. The eggs are four or five in number, greyish white in ground colour, mottled and freckled with olive brown and grey. Eggs for later broods may be found even in July. As soon as the young are reared the birds commence to flock together and remain gregarious until the following spring. The Sky Lark is about seven inches in length, brown above, buffish white below, spotted with dusky brown on the breast, and more or less marked on the flanks with brown.

Perhaps not very distantly related to the Larks we have the family of Pipits and Wagtails (*Motacillidae*), of which several familiar species are found in the fields. As previously mentioned the Pipits bear a strong superficial resemblance to the Larks in general coloration, but the back of the metatarsi is not scutellated. The general shape of the wing in the two families, however, is very similar, the innermost secondaries being about equal in

length to the primaries, and the long hind claw of many species forms another striking resemblance. The Pipits (*Anthinæ*) are a dull-coloured group on the whole, with a tail of moderate length, and number some forty species and varieties, distributed over most parts of the world, with the exception of the Pacific Islands. They are all terrestrial species, and run along the ground instead of hopping. We have three indigenous Pipits in the British Islands, and it is an interesting fact that each of them prefers a different haunt, and will therefore require detailed notice in as many of our chapters. The Pipit of the fields is the **Tree Pipit** (*Anthus trivialis*), although it is found in them during summer only, arriving in late April, and departing south in September and October. It is wonderful how some migrants return with the greatest regularity and persistence to old haunts after an absence of many months and a double journey of thousands of miles. In Yorkshire and Derbyshire for many years in succession I remarked the same spots frequented by Tree Pipits—certain fields and certain trees, and the nests were made regularly in one particular place with scarcely the variation of a couple of feet. The nearest locality in which these birds could have spent their winter absence from the north of England was Algeria, some fifteen hundred miles to the south as the crow flies. The same astonishing facts may be remarked in connection with other migratory species. The Tree Pipit, as its name implies, is by no means exclusively confined to fields, but frequents many open spots of park-like ground where trees are abundant. It is widely distributed over England, except in the extreme south-west, but becomes local and more thinly dispersed in Scotland, and is practically unknown in Ireland, although it has been recorded as breeding there. This Pipit has the upper parts brown, with darker brown centres to each feather, the underparts sandy buff, fading to buffish white during the summer, with spots and streaks of dark brown on the throat, breast, and flanks; the greater and median wing coverts are tipped with white, thus forming a conspicuous double bar; the outer tail feathers are white, obliquely marked with dusky brown on the inner web. Male and female are very much alike in colour. The Tree Pipit may be easily recognised

by its very short and curved hind claw, a peculiarity due most probably to the bird's perching propensities. When making its home in the fields some convenient tree is selected by the cock bird on which to sit, and at intervals to start on those song-flights I have already described (conf. p. 13). The Tree Pipit continues sweetly to warble thus up and down at intervals throughout the spring and summer days, sometimes singing as he sits on the branches too, until the middle of July, when he becomes silent, and from that date onwards to the time of his departure he shuns the trees and leads a terrestrial existence. Both sexes, I should say, always roost upon the ground amongst herbage, and obtain the greater part of their food in the same places. This consists chiefly of insects, small worms and grubs, and in late summer of unripe grain. Upon the ground this Pipit is very active and graceful, running daintily about like a Wagtail, and sometimes using its wings as it darts forwards to catch an insect. Its eggs are laid in May and June. The nest is always made upon the ground, frequently in tall herbage, but by no means uncommonly in short grass in pasture fields. It is usually placed in a little hollow (I have seen it in the footprint of a horse or a cow), and is cup-shaped, made externally of dry grass roots and scraps of moss, and lined with finer grass and horsehair, although the latter material is sometimes omitted. The eggs, five or six in number, present a most puzzling variation, although the student will always find those in the same nest similar. The ground colour varies from white through the palest of blue and pink to pale olive, freckled, spotted, mottled and blotched with many tints of reddish brown, purplish brown, or olive brown, and sometimes with a few scratchy lines of deep blackish brown. Some eggs are densely sprinkled with colouring matter; others have most of it in a circular cap round one end, but the handsomest type is boldly blotched. But one brood is reared in the year, and for some time after they leave the nest the young keep in their parents' company, living entirely upon the ground. These parties, however, generally break up later on. The old birds moult as soon as the young are fledged, and at that time are particularly skulking; and if corn fields be in the vicinity both old and young spend much time in or near them.

The Wagtails (*Motacillinæ*) are a much more showy group, with the colours more brilliant and clearly defined. In this section of the family the tail is comparatively much longer, but the wing is very similar. They are also more slender and graceful-looking birds than the Pipits, and even more terrestrial in their habits. These birds may be very conveniently divided into two distinct sections, one containing the "Pied" Wagtails, and the other the "Yellow" Wagtails. We find representatives of both in the fields. Numbering some twenty species only, the Wagtails are confined to the Old World, where they are widely distributed, but do not inhabit the Pacific Islands or Australia. By far the best known British species is the **Pied Wagtail** (*Motacilla yarrelli*), known familiarly in many country districts as the "Dishwasher." This species is observed more especially in fields during the non-breeding season; during summer it may be found in brick-fields, waste grounds, and near to homesteads, cattle-ponds, mill-dams, and so forth. It is found in almost every part of the British Islands during the breeding season, but is more local in winter, during which season a partial migration south takes place. The male has the general colour of the upper parts, the throat and the fore part of the neck black, the forehead, the ear coverts, and the underparts white, suffused with grey on the flanks; there are white markings on the wing coverts and quills; the tail is black and white. The female closely resembles the male in colour. In winter the throat becomes white, and the back grey. It is in fields where tilling operations are in progress that the Pied Wagtail becomes most interesting, for its every action can then be watched with ease. There it may be seen daintily running along the furrows at the ploughman's heels, balancing itself by vigorous beats of its long tail, ever and anon darting forward, aided by its wings, to catch an insect, or rising with a sharply uttered note of *chiz-zit* and passing in a peculiar drooping or undulatory flight to another part of the field, its descent to the ground invariably being accompanied by a series of rapid tail beating. It is to some extent gregarious, congregating in autumn into flocks of varying size, and appearing in spring upon the fallows in similar gatherings. This Wagtail may also be seen upon the pastures

running amongst feeding horses and cattle, eagerly catching the minute flies and beetles that haunt such spots. The Pied Wagtail is but a fitful songster, its short and varied melody being usually given forth as the bird flutters for a few fleeting moments in the air. The nest of this Wagtail is often commenced as early as March, and eggs may be obtained from that month onwards to June, as, in some cases at all events, two broods are reared in the season. It does not breed on the open fields like the Tree Pipit, but retires to a hole in a building, in a wall, under a clod of earth or clay, or a tile in a brickfield, in crevices of rocks or roots, or under a bank, and there makes a more or less bulky nest of dry grass, straws, roots, twigs, moss, dead leaves, bits of twine or similar rubbish, lined with hair, wool, and feathers. The eggs are four to six in number, bluish white in ground colour, thickly freckled, and sparingly spotted with brown and grey. On some eggs the freckles are predominant, on others the spots and blotches. The Cuckoo very often drops an egg into the nest of the Pied Wagtail. The food of this Wagtail consists of insects, small beetles, worms, and grubs. The young remain with their parents for some time after they are fledged, often leaving the nest during the daytime before they can fly, and are most carefully fed by the old birds. As soon as the young can fly the nest is abandoned and the broods resort to the pastures. Here they still continue to be fed by the parents, and may be easily recognised by their paler coloration and fluttering wings each time an old bird draws near with a morsel of food. This Wagtail flocks in autumn, and draws south in great numbers during October. I should here mention that the closely allied **White Wagtail** (*Motacilla alba*), distinguished by its grey instead of black upper parts, may sometimes be met with, especially in spring and autumn, in the fields and fallows, in small flocks and parties. It sometimes breeds in our islands, and there can be little doubt is much overlooked during summer in our country. There are about a dozen other species of these Pied Wagtails, all very similar in appearance and general habits.

Of the "yellow" group the **Yellow Wagtail** (*Motacilla raii*) is the best known species in the British Islands. It is, with few exceptions, a summer visitor only to us,

arriving early in spring in flocks, and found in most parts of England (except the extreme south-west) and the south of Scotland, but very local in Ireland. It is olive yellow above and brilliant lemon yellow below; there is a very conspicuous yellow stripe over the eye. This exquisite bird is pre-eminently a *field* Wagtail, and has its favourite haunts in marshy meadows and pastures. Upon its arrival here in spring in flocks it often resorts to the fields where tilling operations are in progress, and I know of few prettier sights than a company of Yellow Wagtails tripping about the furrows and the newly-sown ground. Their actions are almost precisely the same as those of the Pied Wagtails. They daintily run to and fro so lightly as scarcely to touch the earth, beating their tails incessantly, taking short dipping flights from time to time with a spirited and hearty *chiz-zit* as they rise. Although seen on the pastures all the summer through associating freely with cattle, they do not nest on the open ground, but concealed under a tuft of herbage, a stone, or in a hedgerow bank. The nest is made externally of dry grass, straws, roots, and moss, and lined with feathers, roots, hair, or fur, whichever material may chance to be available. The four to six eggs are greyish white in ground colour, mottled and freckled with yellowish brown, olive brown, and occasionally scratched with very dark brown. The eggs for the first brood are laid in April, for the second in June. This Wagtail is just as fitful a songster as the Pied Wagtail, but its voice is perhaps more sweet and melodious. Its food is very similar to that of the other species, and is obtained in the same manner. The Yellow Wagtail may often be seen to alight in trees, but it never roosts in them. As the autumn advances it gathers up into flocks, which, like those of the Pied Wagtail, often resort to shrubberies, reed beds, and thickets to sleep. The bulk of the birds draw south in autumn, but I have seen this species in midwinter repeatedly as far north as Yorkshire, and numbers apparently pass the winter in our southern counties. Occasionally the fortunate observer, especially in spring, may come across an odd example of the **Blue-headed Wagtail** (*Motacilla flava*) on the pastures, especially near the sea in the southern counties. This bird has a white throat and eye-stripe, and a slate-grey head and nape.

Another summer visitor to the fields is the **Whinchat** (*Pratincola rubetra*). It belongs to the Thrush family (*Turdidæ*), and is included in that section (*Turdinæ*) in which the metatarsi are covered before and behind with one uninterrupted plate, instead of being encased in a series of scutellations. In this sub-family the young in nestling plumage are spotted. The Bush Chats, as the group to which the Whinchat belongs are collectively termed, form a somewhat aberrant little assemblage, intermediate between the more typical Chats (of which the Wheatear is a common example) and the Flycatchers. They have a rather short and broad bill, with numerous well-developed rictal bristles at the base of it. The dozen known species are confined to the Old World, but are not represented in Australia or the Pacific Islands. Europe has three or four species, two of which are indigenous to the British Islands, the present Whinchat and the Stonechat, which we shall find in other haunts (conf. p. 97).

Although the **Whinchat** may be observed in gorse coverts and on the rough grounds on the borders of moors, fields in most districts are its favourite haunts, and it is one of the truly characteristic species of the hay meadows. Like the Tree Pipit it is a summer migrant only to the British Islands, reaching them in April and departing south again towards the end of September. It has much the same distribution as that species, for we find it locally only in the extreme south-west of England (where, by the way, the Stonechat is the predominant bird), rarer in Scotland, and comparatively scarce in Ireland. The male Whinchat is dark brown above, the feathers margined with buff; the wings and tail are dark brown with a white spot on the coverts of the former, and the basal half of the latter is white, except the two centre feathers, which are white at the base only; there is a white stripe above the eye and on the sides of the neck, whilst the ear coverts are black; the underparts are rufous brown, brightest on the breast. The female is generally paler in colour, and the white parts are not so white nor the black portions quite so intense. The Whinchat cannot well be passed unrecognised. It has a most characteristic way of perching on tall weeds in the meadow grass, and there uttering a monotonous note of *u-tac, u-tac*,

u-tac-tac-tac, flicking its rather short tail, and is rarely still for long together, restlessly flitting from one stem to another, and at intervals fluttering into the air to chase an insect. It is ever wary and takes good care to keep an observer at a safe distance, except when its nest is menaced, when it becomes far more fearless and anxiously restless. Whinchats are usually met with in pairs right through the summer until the young are fledged, when they move about in family parties. The male possesses a low and very unassuming little song, which may be uttered whilst he sits at rest clinging to some tall stem, or when fluttering for a short distance in the air. This song is lost very early in the season; it may be heard throughout May, becomes far less frequent in June, and ceases entirely during the first week in July—by the time the young are hatched, and when the cock-bird is too busy foraging for them to indulge in music. Upon their first arrival Whinchats frequent the fallows, but resort to the meadows as the herbage increases in height and the nesting period draws near. They are terrestrial birds, obtaining most of their food on the ground, and invariably roosting upon it. The food consists of insects (including many small beetles), small worms and grubs, and much of this is obtained in a manner very similar to that displayed by the Wagtails. Whinchats may often be seen sitting on the low drooping branches that in some fields overhang the grass, from which they sally out at intervals to secure passing insects. They are late to go to roost, and their characteristic call-notes may frequently be heard in the meadows when dusk conceals the birds from view. Although frequently seen to perch in trees or on hedgerows, they ever prefer the lower vegetation. A few weeks after their arrival Whinchats are seen in pairs, and towards the end of May (early June in extreme northern localities) the nest is finished. In the fields this is placed on the ground amongst the meadow grass, but in gorse coverts or heath it finds shelter under some friendly bush. It is a slight cup-like structure, made of dry grass and moss and lined with roots and a little horsehair. There are few more wary birds at the nesting ground, even when their home is in course of construction, the little architects flitting restlessly about with material in their beaks in a manner

calculated to try, the patience of the most persevering observer, who as likely as not is foiled in his designs of nest-finding after all. Far more often the little home is stumbled on quite by accident, the frightened parent disclosing the secret as it rises from one's feet. The five or six eggs are a beautiful turquoise blue, with a faint dusting of rusty brown specks, forming a zone round one end. It is rarely that the poor little Whinchats are quite in time to rear their brood before the grass is cut for hay, and when this cover is laid by the relentless scythe or more modern mowing machine, we have a very favourable opportunity for watching the ways of this charming bird. From one broad swath to another the Whinchats flit uneasily, calling incessantly as they fly or as they sit at rest, paying little heed to the haymakers and full of concern for their helpless young, now most probably quite bare and exposed in their tiny open nest. But with a singular good fortune I have often remarked the young brood come safely through their peril, and in a few days more are following their parents about the fields in quest of food. They remain thus in company for weeks, the old birds moulting in July and August, obtaining a new suit of feathers just prior to their departure south, and at this season the cock most closely resembles the hen in colour, the pale margins to the feathers giving them a very light appearance, and the rufous hues are nothing near so rich in tint.

The **Common Bunting** (*Emberiza miliaria*) is another species intimately associated with the fields. The Buntings (*Emberizinae*) form one of the three sub-families into which the Finch family (conf. p 72) is divided, and are readily distinguished by the formation of the bill, which has a very pronounced gonys or chin angle and an irregular gape line; that is to say, the line between the two tightly closed mandibles is broken and irregular. The Typical Buntings also have a hard knob on the palate, which serves as a sort of anvil on which they crack seeds. Although the Common Bunting is widely distributed, it is a somewhat local bird, found most commonly on grain lands and rough pastures near the sea. It is common in the southern English counties, becomes rarer northwards, and is widely, if locally, dispersed in Ireland. The

general colour of the upper parts is pale brown, streaked with dark brown; the quills and tail are dark brown, but the inner secondaries are margined with sandy brown; the underparts are pale buff, spotted on the breast, and streaked elsewhere with dark brown. The female resembles the male in colour. Usually this bird is first seen clinging to some tall weed or perched at the top of a bush, or even on a wall or a telegraph wire from which, in spring and summer, the male keeps monotonously uttering at intervals a harsh grating little song, something like the creaking of rusty wheels. The call-note is a similarly monotonous *zit*. If disturbed, it flies in a heavy sort of way, often with legs dangling down, to another bush or stem. It feeds on grain, seeds of many kinds, insects and larvæ. It flocks in autumn, and often associates with Yellow Buntings on the hedges and fields. It breeds rather late, usually laying in May and June. The nest is placed upon the ground amongst herbage, sometimes a little distance above it in brambles, and especially amongst growing corn or meadow grass. It is composed of dry grass, moss, roots, and dead leaves, and lined with finer grass, roots and hair. The four to six eggs are pale buff or greyish white, spotted, streaked and blotched with dark purplish brown, pale brown, and grey. The lines and streaks on some specimens are very bold and intricate. The female is a close sitter, but the male often betrays the whereabouts of the nest by sitting on some tall weed or twig near it and droning out at short intervals his peculiar song.

The open fields are the chosen haunt of that curious bird the **Corn Crake** (*Oxyechus yezoensis*). The Corn Crake is a perfect anomaly in feathers, one of those few creatures of which the structure is not in agreement or harmony with the habits. It is of course structurally, like other Rails, fitted for an aquatic or semi-aquatic life, yet it is quite as terrestrial in its economy as a Partridge or a Lark. In this respect it resembles those curious birds the Upland Geese of South America, which seldom or never visit or swim on water, although they have normally webbed feet; or the Frigate Bird, with similarly webbed feet, which never alights upon the ocean, although in this latter case the webs seem to have commenced a course of deteriora-

tion or transition through disuse. The Corn Crane belongs to the order *Ralliformes*, of which some two hundred species and races are at present known to science. This order may be divided into two families, only one of which, the *Rallidæ*, has any British representatives. These birds have an after-shaft to the body feathers, and the tail contains twelve feathers. The family may again be divided into two sub-families—one, the *Rallinæ*, containing Rails with plain toes; and the other, the *Fulicinæ*, in which are Rails with a lobe or scolloped appendage to the toes. The Corn Crane is a member of the former group, and belongs to the genus *Crex*. There are about twenty species in this genus, all confined to the Old World, having representatives in almost every part except the polar regions. Four are British, but one only can claim to be a dweller in the open fields. These Cranes, as they are called, are distinguished from other Rail-like birds by their short thick bill (shorter than the head), and the forehead is covered with feathers to the base of the beak. They have moderately long but rounded wings, a short tail, comparatively short metatarsi, and long and slender toes, armed with sharp curved claws. The much compressed body is also a remarkable character, enabling these birds to pass with ease through matted and tangled vegetation. The Corn Crane is a summer visitor only to the British Islands, reaching the southern counties towards the end of April, but is a week or more later in the northern ones. It is very generally distributed over our area from this time onwards to September and October, whilst in some cases odd birds have been known to remain with us during the winter. It has the general colour of the plumage brownish buff, spotted with black on the upper parts, suffused with grey on the face and breast, and the axillaries are chestnut. The sexes are similar in colour. The chicks are covered with black down. The arrival of this most skulking bird is generally proclaimed by its harsh, grating, and monotonous cry, which may be closely imitated by drawing a knife blade smartly across the teeth of a stout comb. This note, which may be regarded as a love cry, is confined, I believe, to the male. It is heard least frequently in cold, dull weather, and entirely ceases in the late summer or as soon as the young are hatched. The Corn Crane is far more often heard than seen. It

keeps close to the cover of growing corn or meadow grass, wandering from field to field, especially just after arrival and before a nesting situation has been chosen, calling monotonously by day and by night. On the rare occasions that it is flushed it rises in a slow, laboured manner, with legs dangling down, its only aim apparently being to seek cover, and then it is very rarely put up again, even by the aid of a dog. Water or marshy places are by no means essential to its existence; it will pass the entire summer upon waterless meadows. Its food consists of worms, slugs, snails, insects, and beetles, tender shoots of herbage, and various small seeds. The Corn Crake appears to pair annually some time after its arrival in its summer haunts. Its favourite breeding places are fields of mowing grass, clover, growing grain, lentils, and such-like. It is neither a gregarious nor a social bird. The nest, always placed upon the ground, is a much better structure than is generally described; it is made externally of coarse grass, stalks of plants, dead leaves, and is very neatly lined with fine wire-like grass, much of it half green. The eight to a dozen eggs vary from pale bluish white to pale buff in ground colour, spotted and blotched with various shades of reddish brown and grey. Sometimes one egg in the clutch will be much paler than the rest or have a bluish ground colour. I have repeatedly known this bird remove its eggs to some distance if the nest has in any way been disturbed. The young run almost as soon as they break from the shell—tiny little balls of black puff that are perfect adepts at concealing themselves if threatened by danger. The old birds are now more skulking than ever, yet in the early autumn, when the grass has all been cut, they may frequently be observed on the bare pastures walking about like Water Hens. They seldom venture far from the hedges now, to which they retire at the least alarm. At this season they also frequent fields of turnips and other root crops, often being flushed by the sportsman out after Partridges. It is now a silent bird, so that we miss it quite unawares, and it is difficult to tell the date of its departure from a special haunt. I may add that the Corn Crake is highly prized as an article of food, its flesh being white and quite as delicate as that of many Game Birds.

There are several Game Birds that may fairly claim notice as special birds of the open fields. These are the Partridge, the Red-legged Partridge, and the Quail. All belong to that extensive and important order the *Galliformes*, which is composed of some four hundred species and races divided into no fewer than nine families. These birds show some affinity with the Rails through such forms as the *Hemipodes*, especially in the eggs, those of the last-named having, like those of the Rails, two classes of markings—surface spots and underlying spots; whilst those of the Typical Game Birds have surface spots only. Two of these families have representatives in the British Islands. All the three British field species are contained in the family *Phasianidæ*, amongst the more important external characteristics of which may be mentioned the bare nostrils, the partially or completely naked metatarsi, frequently armed with spurs, and the never pectinated and bare toes. The Partridges and Quails are included in that section of the family, the members of which never have any serrations on the cutting edge of the lower mandible; the first primary feather is equal to or longer than the tenth, and the tail is shorter, generally much shorter than the wing. In some species there is a naked space round the eye, but the sides of the head are always feathered. First, then, we may briefly glance at the **Partridge** (*Perdix cinerea*). About half-a-dozen species are contained in the genus *Perdix*, all very closely resembling the British Partridge in general appearance, and distributed over the more temperate portions of Europe and Asia. They are all characterised by having the metatarsi scutellated in front and reticulated behind, by their very short tail, containing from sixteen to eighteen feathers, and their rounded wings. They have a short stout bill, and nostrils concealed by a membrane. The Partridge is one of the best-known resident birds of the British fields found in all agricultural districts where it is preserved, and a familiar enough object to every observer of bird life in those spots. The bird is too well known to require detailed description, the plumage being a prettily-arranged mixture of brown, buff, chestnut, black and grey, mottled, streaked, barred and vermiculated in pleasing variety. The dark chestnut horse-shoe-shaped

mark on the abdomen is a very characteristic feature. There is also considerable local variation in the plumage; and in some parts of the country the horse-shoe mark is more or less mixed with white. Although the Partridge may be met with in every agricultural district where protection is afforded it by man, it certainly thrives best on the light-dry grounds where the fields are of a moderate acreage and plenty of dense hedgerows and "dry" fences or ditches occur. Except during the breeding season the Partridge is a social little fellow, and breeds in coveys or flocks which may be flushed from almost every kind of field at one season or another. Very startling they are as the plump brown birds rise on whirring wings from the herbage almost at one's feet, and after going some distance across the fields skim on arched and stiffened wings and finally settle in more secluded places. With this sight every student of bird life in the open air must be tolerably familiar, but the inner, domestic, or private life of the Partridge is much less known. This is due to some extent to the care with which the precious bird is guarded during the whole time of its existence, to stringent game laws and laws of trespass, notices regarding which all too frequently stare the innocent lover of birds out of countenance from trees and sign-boards in so many rural spots where Nature reigns supreme. However, we will discard these gamekeepers and trespass-boards for once, stray far and wide across the breezy fields away from narrow footpath and highway, and seek the Partridge in his sacred retreats. The coveys of Partridges break up in February and scatter into pairs over the fields for breeding purposes. I believe this bird mates for life, so that it is only the young and those which have lost their partners during the shooting season that require to pair. The first signs of the nesting season are remarked in the voice of the bird, and in April from all parts of the fields we may hear its curious love cry, most persistent at morn and even, and resembling the syllables *kirr-rr-ric* uttered in a particularly loud and strident strain. In May the hen makes provision for her eggs, forming a rude hollow of a nest lined with dry grass and leaves, either in a warm and cosy hedge bottom, or some distance into the open fields amongst all kinds of growing



PLATE II.—PARTRIDGES : THE FRIGHTENED COVEY.

Face p. 38.

crops. Occasionally one may stumble across a Partridge's nest quite close to a well-frequented footpath or in the long grass near a rustic stile, and on rarer occasions it has been met with on haystacks and other unlikely places. The eggs, from ten to fifteen or even twenty (the number being influenced by the age of the hen), are smooth and polished and of a pale olive brown colour, easily distinguished from those of the Pheasant (which resemble them precisely in colour) by their small size. Upon these the female sits for about three weeks, and then the downy chicks break forth, which both parents tend with the greatest care. The broods and their parents now keep together right through the coming autumn and winter, wandering about the fields in quest of food and haunting all kinds of crops. The Partridge is a thorough ground bird, running on occasion with remarkable speed, and with a happy knack of crouching flat and close to the earth when a wandering Hawk passes overhead or other danger threatens its safety. Its food consists of all kinds of grain and many seeds and fruits, varied with buds and shoots of plants, insects, grubs, snails, slugs, and worms. The young are very partial to ant's eggs. The birds feed chiefly during morning and evening, and in hot weather are very fond of resorting to some bare spot in the fields to dust themselves and to bask in the sun; at other times they take equal delight in squatting close under cover during the heat. At night the covey betakes itself to some favourite spot in the fields where the birds in a circle sleep upon the ground, each with head turned outwards, ready to detect approaching foes, from whichever direction they may approach. From a sporting point of view the Partridge need not trouble us here.

The **Red-legged** or **French Partridge** (*Caccabis rufa*) was introduced into England in 1770, and has gradually spread over many parts of the eastern and midland counties. It forms one of a group of some half-dozen species, spread over the mountainous portions of South Europe, North Africa, and South Asia. They are characterised by their nearly uniform upper plumage, conspicuous gorget, and broadly-barred flanks. They are of similar structure to the ordinary Partridge, with rounded wings and a short tail, but the latter is composed

of fourteen feathers only. The males have the metatarsi armed with a tubercle or spur. The adult Red-legged Partridge is a very handsome bird, brown above, shading into grey on the top of the head; the eye-stripe, chin and upper throat are white, the lores black, and the white upper throat is margined with a broad collar of black; the breast is grey and the rest of the underparts chestnut, except the broad and beautiful flank feathers, which are grey, barred with white, black, and chestnut. The bill, legs, and toes are a brilliant scarlet. This bird differs considerably in its general habits from the Common Partridge. It is even more skulking, and always tries to elude pursuit by hiding amongst the herbage or running off through the cover with great speed, taking wing ever with reluctance. Another remarkable trait is its partiality for perching on trees and hedges, or even on hay or corn stacks, whilst long-continued snowstorms repeatedly drive it into the shelter of woods and coverts. Its flight and note are similar to those of the English bird, and it feeds in this country upon much the same fare. Although during the non-breeding season it lives in coveys, these readily break up if alarmed, and each bird seeks safety in its own direction, whilst its habit of running and seldom lying close to be flushed render the sport it yields indifferent. It pairs in April, during which period the males are very pugnacious, and the female makes a slight, slovenly nest on the ground, in similar spots to those selected by the English Partridge, where the hen lays from a dozen to eighteen eggs. These are pale brownish yellow, spotted and freckled with dark reddish brown. The hen sits a little over three weeks, and then both parents assist in rearing the brood. There is much evidence to show that this species and the ordinary Partridge make bad neighbours, and the "Frenchman" too often gets the better of his weaker ally. I may add that this bird may often be found on rougher ground than would suit the English Partridge, such as commons and heath lands covered with brushwood.

Our third Game Bird of the fields is the **Quail** (*Coturnix communis*). These birds, although somewhat like Partridges in general appearance, and of which there are less than half-a-dozen species, have fairly long and

pointed wings (indicating migratory habits); the tail is very short, less than half the length of the wing, and contains ten or twelve feathers. They are all birds of small size, and are all confined to the Old World, where they are found in most parts, save the polar regions. The Quail is by no means a common species, but is locally distributed during summer over most parts of the British Islands. It arrives in them from its winter quarters in Africa during May with the last batch of our summer migrants. It is very much like a miniature Partridge in appearance, buff, barred with brown and striped with paler buff; the sides of the head are chestnut and the throat is dull black; the female, however, has a buff throat and is spotted on the breast and flanks with brown. The merry *clik-a-lik* of the male Quail forms a pleasing sound in the grass fields and corn lands during spring. To these chosen haunts the birds return with much attachment every year. They are somewhat skulking little creatures, confining themselves to the ground and the herbage, running quickly, and when flushed flying with rapid wing beats, apparently consumed with anxiety to tumble into the nearest cover as soon as possible; the same gliding with motionless wings so characteristic of the Partridge is frequently apparent. Indeed, in many of their habits they closely resemble that species, being most active at morning and evening, fond of basking and dusting on bare bits of ground, and feeding on grain, seeds, insects, worms, and mollusks. They are by no means gregarious during the breeding season, although there is evidence to suggest that in some cases at least one male lives in the company of several females. But, on the other hand, there are few more sociable birds during passage, and their migrating bands are often composed of countless individuals, especially as they cross the Mediterranean and parts of Southern Europe. They live in coveys like Partridges, however, composed of the broods and their parents, before finally congregating for the autumn passage. During the pairing season the cocks are most pugnacious little creatures, and it is at this time especially that the lively call-note is most persistent. The female makes her scanty nest amongst the growing corn, clover, or meadow grass—a mere hollow lined with dry

grass and leaves. In this she deposits from eight to a dozen eggs (sometimes a great many more, possibly in such cases the produce of two hens), buffish white or yellowish olive in ground colour, handsomely blotched and spotted with brown, of shades varying from olive to nearly black. The hen incubates these in about three weeks, and the young chicks can run almost immediately. They leave the British fields in September and October, but it is by no means unusual for odd individuals to pass the winter in our islands.

It would be scarcely fair to assume that the birds we have already dealt with in detail either exhaust the avifauna of the fields or convey a correct and complete picture of the general ornithology of such localities. There are many little details that are still required to form a finished picture of this haunt of bird life—many species yet to be named which are common objects of the fields without being inseparably associated with them. These are the occasional visitors to such places, or the birds that more or less habitually resort to them for food, and which the student cannot fail to meet with whilst pursuing his observations in them. All, however, will be dealt with from time to time in fuller measure when we come to review the bird life of other localities. Here it will be sufficient to name them casually before passing on to other scenes and other haunts.

What picture, for instance, of bird life in the fields would be complete without some allusion to the **Rook** (*Corvus frugilegus*)? It is one of the commonest birds found upon the fields, and draws the greater part of its sustenance from them. Who has not watched the violet black birds sedately walking about the grass lands, or seen them in serried heavy flocks following the plough, or digging up the seed corn and potatoes, much to the indignation of the farmer? But the Rook, all things considered, is a most useful bird to the agriculturist, and his depredations are far outbalanced by the watchful eye he keeps upon noxious creatures, enemies to all the growing crops. Then, in wandering over the fields, who has not paused to watch the big birds winging their way in scattered cawing flocks at eventide towards the distant rookery? No picture, indeed, of bird life in the fields would do without the

sable Rook figuring in it. The **Jackdaw** (*Corvus monedula*) is another bird frequently seen on the grass lands and some other fields, usually in cackling flocks, and quite as wary as the Rook. Then, quite as closely associated with these spots, we must also introduce the **Starling** (*Sturnus vulgaris*). Almost as dark of hue, they are easily identified by their walking and running gait as they trip about the pastures and grass fields, mingling freely with the Rooks, but on rising displaying the greatest exclusiveness, by bunching together and flying away by themselves. These birds obtain the greater part of their food on grass land, but are very fond of frequenting manure heaps in the corners of the fields, for they are of omnivorous tastes, and little comes amiss to them. The Starling is always interesting on the fields, whether we watch them scattered about searching for food for a nestful of clamouring youngsters, and note the regularity of their visits, the livelong day, at intervals, only broken by hurried visits to their nests in the neighbourhood; or whether, later on in the summer, we stand and observe their ways, now in large flocks, which, after rising almost simultaneously in a dense pack, perform those curious evolutions in the air which we have already described. Then from time to time during summer the blithesome **Cuckoo** (*Cuculus canorus*) may be seen crossing the fields from one tree or hedgerow to another; very like a Sparrow-Hawk he looks, with his grey dress and long wings and tail; but, as likely as not, he utters his joyous cry as he nears his resting-place, and thus dispels any lingering doubt of his identity. Very often one or more small birds follow and buffet him as he flies. We could not picture our English fields without the gliding fluttering Swallows and Martins that spend so much of their lives above them. Fleet-winged Swallows, and slower-paced Martins, there they often are in scores, flitting just above the grass and flowers in the meadows, or rising to circle and dash to and fro in the higher air; skimming down the hedge-sides, backwards and forwards on never-tiring wings, in and out and round about the sleepy-looking cattle, snapping up insects in uncountable numbers. Higher up in the sky the long-winged Swifts are also seen above the fields, and on rare occasions descend nearer to the earth—especially

when the grass is cut for hay—and join with the Swallow tribe in gathering the plentiful supply of insect food. These dark, long narrow-winged birds always seem a little uncanny and out of place when in the society of Swallows close to the earth; they give one the impression that they have deserted their proper haunt, the higher atmosphere, to join in a feast not legitimately their own. Then we must not forget the Thrushes, that have timidly ventured out from hedge and woodland on to the grass fields to seek a meal amongst the herbage. How venturesome they appear to think themselves at coming out so far into the open and bright light of noonday. But they will be on these places in still greater numbers towards evening or in early morning, while the dew still lingers and worms are plentiful. A smart summer shower also never fails to bring these birds to the pastures. There we note the spotted-breasted Song Thrush, the equally spotted but much larger Misselthrush, and the dark-plumed Blackbird, all hopping daintily about, the very essence of wariness, and ready to return to cover at the least alarm. This is typical of a summer day; but in winter, when the meadows are bare or even frost-bound, there upon them gather flocks of Redwings, and, less frequently, Fieldfares, winter visitors here from far Norway and Sweden. Mingled with them we still may note the English resident Thrushes and the Blackbirds, the latter hurrying off with a long string of chattering cries to the evergreens if alarmed, and stealing forth again to alight with an impudent-looking cock of the long tail just after their feet have reached the ground.

Neither must we forget the many kinds of Finches that at one time of the year or another resort to the fields for food. What vast numbers gather upon the fields of standing grain, or even, for that matter, when the big brown sheaves are stacked into “stooks” previous to being carted home! There they are, House Sparrows especially, in flocks of hundreds, all gathered from the outlying towns and villages to feast upon the forbidden fare. Mingled with the Sparrows are numerous Greenfinches, a sprinkling of Whinchats and Warblers, together with Yellow Buntings and Corn Buntings, the latter even nesting in the growing corn. All round the field-side the

grain has been deftly threshed out by hundreds of active bills, and flock after flock of birds may be remarked settling in or rising from the corn. When the fields are cleared the stubbles are a general rendezvous for various other species of the Finch tribe. On the clover stubbles we may see flocks of Redpoles and Linnets eagerly devouring the tiny seeds of weeds and grasses; whilst later on in winter such spots and the newly-manured meadows and pastures form the happy hunting-grounds of Bramblings, Chaffinches, Buntings, and other hard-billed species. The turnip fields are also the chosen resort from autumn onwards of many Thrushes and Meadow Pipits. Here, too, the Partridges lurk beneath the big green leaves, and many Hedge Accentors are attracted to them by the abundance of food. Lastly, we may mention the **Lapwing** (*Vanellus cristatus*), another somewhat anomalous bird with regard to a haunt. It is one of the Plovers, yet breeds in some numbers upon many a fallow field and upland pasture; whilst in winter time it often frequents marshy meadows in flocks. Its wailing cry and tumbling, erratic flight are most characteristic. In many fields the Black-headed Gull may also be met with in flocks and scattered parties, following the plough as complacently as the Rooks themselves, and, if disturbed, alighting in the nearest trees with its sable companions. The Barn Owl and the Wood Owl also hunt the fields for mice, especially about harvest time, but their actions are not so readily observed, for they usually stay at home until dusk. The Goatsucker, again, flies about many a field where cattle are grazing and otherwise, chasing the big white ghost-swift moths that blunder about among the grass stems or flutter over the herbage, looking very conspicuous in the gloom; whilst the Kestrel is a persistent hunter of the fields, scanning them from on high as he hovers and poises on trembling wings in the air above; and the Sparrow-Hawk takes many a feathered victim from these places too, as he sweeps across them in impetuous haste.

I trust that sufficient has now been said to illustrate the bird life of the open fields, to show that this bird life in them is sufficiently varied to stamp them as a special haunt of such creatures. We have seen that birds lend these fields a charm at all seasons of the year, whether in

spring-time, when the fertile earth is being tilled for future crops; in summer, when such crops are reaching maturity; in autumn, the time of their harvest; or in winter, when all is drear and desolate, and vegetation is at its lowest ebb. Birds are in them always, to make them glad with song and beautiful with animate life.

A brief consideration of the Downs as a haunt of birds must bring the present chapter to a close. One of the most typical birds of these rolling, unenclosed lands, that like the billows of some stationary and solid ocean roll across the countryside for miles in bare monotony, relieved here and there by clumps of trees, rocks, and gorse coverts, is the **Wheatear** (*Saxicola cinerascens*). This bird belongs to the same sub-family as the Whinchat, but occupies a different genus. Some thirty species of Chats or Wheatears are known, all distinguished by having black legs, and usually a white lower back, upper tail coverts, and base of the tail; but in some few forms these are chestnut. The tail is also always less than four times the length of the culmen. The Chats, with one exception, are confined to the warmer parts of the Old World, where they are chiefly found in rocky and desert localities. The Wheatear is a very remarkable little bird, because it is a summer migrant as far north as land is known to exist, and is found over Europe and Asia, eastwards to Alaska and westwards to Greenland, whilst in winter it is found in North and West Africa. It is commonly distributed over the British Islands, especially in the northern portions, and most local in the south and west of England. It is one of the easiest identified of British birds, in its clear blue-grey upper plumage, white rump, and black and white tail; from the bill to the eye and over the ear coverts is black, whilst above the eye is a white stripe; the wings are nearly black, and the entire under surface is warm buff. The female is brown, with nearly black wings and a black and white tail. The young are spotted, of course. This bird is one of our earliest spring migrants, often putting in an appearance at the close of March, but most arrive in April. It may be seen on the open downs, where it is a very conspicuous object as it flies along the hillsides or perches on the stones and boulders. It shows no partiality for trees or bushes, and loves best the barest

situations. Wheatears migrate in flocks, but these soon disband after their arrival, and the birds separate into pairs for nesting purposes. The song of the male, if short, is sweet and pleasing, and uttered either when the bird is at rest or when fluttering in the air. Sometimes it may be commenced in one position and finished in the other. The call-note is a fairly loud *wee-chack, chack, chack, chack*, sounding something like the noise made by knocking two stones together; hence, in some places in Scotland, the bird is called the *Clacheran* or "Little Mason." The tail is constantly being beaten up and down. It is a somewhat shy bird, and flits off usually just above the ground at the first alarm, retreating thus by stages as it is approached, and finally making a wide detour past the observer to its old haunt. Its food chiefly consists of insects, grubs, small worms, and mollusks, whilst later on in summer fruits are included. Its nest is most difficult to find, always being well concealed in a sheltered spot, such as a crevice of a rock, under a heap of stones, in holes in walls or turf-stacks, in rabbit holes, under clods of rough turf, and so on. It is cup-shaped, and formed externally of dry grass, straws, roots, moss, and dead leaves, and lined with hair, fur, wool, roots, and feathers. The four to seven eggs are pale blue, and seldom show markings of any kind. But one brood is reared each season, and the young are tended for some time after they leave the nest. The migration south is undertaken in September, although there is a perceptible gathering and movement, especially on the Sussex downs, in August. Many of these birds are passing migrants from more northern localities, and as the birds are now extremely fat numbers are caught for table purposes. Formerly the shepherds snared many thousands of Wheatears on the downs; but the poor little birds are now nothing near so abundant as they once were. The **Stonechat** (*Pratincola rubicola*) is common enough in the gorse coverts on the downs, as is also the **Corn Bunting** (*Emberiza miliaria*), but we shall meet with the former bird elsewhere, and may reserve our description of it. In Gilbert White's day the lordly **Great Bustard** (*Otis tarda*) was an inhabitant of the downs. "There are," he writes to his correspondent, Daines Barrington, "Bustards on the wide downs near

Brighthelmstone." For more than half a century the Great Bustard has ceased, alas! to breed in our islands, where it was formerly a resident, and it is now an irregular visitor only, sometimes appearing in unusual numbers during winter. Unfortunately these abnormal visits are quite futile from a colonising point of view, and I much doubt if the bird will ever be indigenous again, notwithstanding the efforts now being made. As in the fields, so on the more open downs, a great variety of birds may be met with from time to time, according to season. Sky Larks shower down their bright melody from the skies; many migrants cross them in spring and autumn; Kestrels hover above them; Swallows and Swifts are common; but sufficient has been said respecting their special avine features.



HAUNT III

THE WOODLANDS

CONTENTS : The Woodpeckers—The Wryneck—The Crows—The Carrion Crow—The Rook—The Jackdaw—The Magpie—The Jay—The Creepers—The Nuthatch—The Titmice—The Goldcrest—The Willow Warblers—The Chiffchaff and Wood Warbler—The Nightingale—The Redstart—The Misselthrush—The Pied Flycatcher—The Finches—The Siskin—The Crossbill—The Pigeons—Ring Doves and Stock Doves—The Turtle Dove—The Pheasant—The Woodcock—The Heron—Owls—The Tawny Owl—Long-eared Owl—The Kestrel—The Hobby—The Kite—The Common Buzzard—The Honey Buzzard—The Sparrow-Hawk.

THE chief glory of the countryside is derived from the woodlands; they form its greatest ornament and the most pleasing and varied feature in every rural landscape. Who can but admire the rolling billowy sweeps of extensive woods, the changing beauty of covert, copse, and spinney; the charm of scattered groves or timbered parklands? Whether in spring, when the first faint flushes of brightest emerald green imperceptibly, yet surely, steal over them as uncounted millions of fruitful buds expand into leaves; or in summer, as the darker green garb of maturity asserts itself; in autumn, as the glorious hues of decaying foliage herald in a thousand tints decay and death; or even in winter, when grey and brown twigs and branches naked and leafless, in sombre masses of still shapely contour, rock and tremble in the blast—the noble woodlands still retain their charm and pride of place in the varied features of the countryside. In what variety bird life lurks within them, how diversified are those feathered creatures that make their haunt the trees!

Here, as in other cases, we shall find that many birds stamp the woodlands with their individuality, as others similarly do less arboreal, and, in fact, all other localities through which it is our purpose in

this volume to wander. The most typical birds of the woodlands are the Woodpeckers (*Pici*), which form (together with the Jacamars, Puff Birds, Barbets, Honey Guides, and Toucans) another sub-order of the *Coraciiformes*, in which, as we have already seen, the Swifts compose yet another (conf. p. 2). I mention these tropical groups to show the relationship of the Woodpeckers, and possibly to add to the interest with which the student will observe the English species. In this sub-order they belong to the family *Picidae*, of which nearly four hundred species are known to science, divisible into three distinct sub-families, two of which contain British representatives. Woodpeckers are found in most parts of the world, very abundantly in the vast tropical forest regions of South America and Asia, but, very singularly, none of these birds are found in Madagascar nor in the whole of the Australian region beyond Celebes and Flores. A striking anatomical character of the Woodpeckers is the long pointed and barbed protrusible



FOOT AND BILL OF WOODPECKER (*Picus*).

tongue. Their most striking external features are the chisel-like wedge-shaped bill, zygodactylous feet (two toes in front and two behind), and in the

majority of species the rigid pointed tail feathers which serve as a prop to support the body as the bird climbs the tree-trunks. They have a big head, very powerful neck muscles, and rounded wings containing ten primaries. The three species of British Woodpeckers belong to the sub-family *Picinae*, in which the tail feathers are always rigid. Perhaps the commonest and most widely distributed of these in England is the **Great Spotted Woodpecker** (*Picus major*). There are some forty species in the genus *Picus*, most of which are found in the northern hemisphere, two only being found in South America. They are birds of black and white coloration, more or less relieved with crimson. It is somewhat remarkable that the Great Spotted Woodpecker does not breed in Scotland, and is comparatively a very rare bird north of Yorkshire. It is not found in Ireland. It is about as big as a Song

Thrush, its plumage a pretty mixture of black and white with touches of crimson on the nape, about the vent, and on the under tail coverts. The female wants this touch of crimson on the nape, as do the young of both sexes, but these latter have a crimson crown. Within the area of its distribution this Woodpecker, if somewhat local, is a fairly common resident, and may be met with in all woodland districts; not only in woods and forests, but in plantations, parks, and fringes of trees by rivers and streams. It is also by no means uncommonly seen in hedgerow trees and in orchards. Like its congeners it is a solitary bird, and, as a rule, is only seen in pairs during the breeding season. In winter time, however, when it leads far more of a nomad life, it may be noticed in the woodlands in company with Nuthatches, Creepers, and Titmice, but this fraternizing may be chiefly due to the common impulse of searching for food and not from any social feeling. It is a shy secretive bird, far more often heard than seen, attention generally being drawn to its presence by the series of smart taps it deals upon the bark when searching for food; and even when discovered the student will invariably find that it always endeavours to keep the trunk or branch between itself and him. Of course observation is easier in winter when the trees are leafless. By keeping very still you may watch the actions of this pretty bird as it searches tree after tree, flitting from one to the other in a dipping course, its black and white plumage looking very conspicuous as it flies. As likely as not it will alight near the foot of the trunk and gradually work its way upwards in a more or less spiral direction, exploring some of the larger limbs as well in its progress. It is practically mute on these occasions; no sound is heard save the smart tapping from time to time as insects and larvæ are being dislodged from their lurking-places in the bark. Occasionally this species raps the bark very loudly and very rapidly, making a thrilling noise which can be heard for a long way; and this sound is believed to be a signal to its mate. It is heard quite frequently in the nesting season. Insects and larvæ are the chief food of this Woodpecker, but in addition to these it eats various kinds of stone fruit, nuts, acorns, berries, and so forth. The ordinary call-note is a shrill *whit*. This

Woodpecker is a rather late breeder, its eggs being laid in May and June. It probably pairs for life, and will occupy a certain nesting place for seasons in succession. It generally bores for itself a hole in some branch or tree-trunk, but occasionally avails itself of one ready made. This hole may be as much as a foot or more in depth, sometimes barely half as much, and the shaft is enlarged somewhat at the bottom into a chamber. Here, on no other bed than the powdered wood and fragments chipped off and dropped during excavation, the six or eight shining eggs are laid, white, with the faintest possible tinge of yellow. Both parents assist in hatching these, and as soon as the young can forage for themselves the family party disbands, and the old solitary nomad life is resumed.

In much the same area of distribution and in precisely similar localities we may also meet with the **Lesser Spotted Woodpecker** (*Picus minor*). It is a resident and, like its larger ally, becomes rare north of Yorkshire, and is unknown in Scotland and Ireland. It may best be described as a pocket edition of the preceding species, being about half its size and very similar in coloration, but differing in its black and white barred back; the male has a crimson crown, but none of that colour on the underparts; the female has no crimson on the head or other parts at all. The habits of the two species very closely resemble each other. The smaller bird is, possibly, even more secretive and shy, but this may in a measure be due to its smaller size, causing it all the more readily to escape observation. It is also more often seen in the slender topmost branches of trees, and, like its congener, seldom visits the ground. Its call-note is somewhat similar; it feeds on much the same substances; and it makes the same kind of tapping signals to its mate in the breeding season. It is quite as solitary, yet sometimes consorts with other small tree-frequenting birds. It is a slightly earlier breeder, laying towards the end of April and in May. It excavates a hole in a tree or branch (both sexes working at the task), makes no further nest, and deposits six or eight pure white eggs. The young are eventually deserted, and for the remainder of the year a solitary existence is passed.

By far the largest of the three British Woodpeckers is the **Green Woodpecker** (*Gecinus viridis*), and of a quite different type of coloration from the preceding two species. It forms one of a group of sixteen associated in the genus *Gecinus*, all of which are remarkable for their prevailing green colour; in common with many other groups of Woodpeckers the wings and tail are barred, and crimson tints very often adorn the head. They are all Old World birds, inhabiting the forests of Europe, North Africa, and Asia. The Green Woodpecker is a resident in England, mostly south of Yorkshire, and is especially common in some parts of the southern and south-western counties. It is practically unknown in Scotland and Ireland. It may justly rank as one of the showiest and most brilliantly coloured of our native birds. The prevailing tint is green, olive above and greyish below, and shading into bright yellow on the rump; the sides of the face are black, spotted with crimson on the cheeks, and the crown and nape are mostly crimson. The female has no crimson on the cheeks. Such a large and showy bird is not very difficult to see, and its presence is further announced by its loud shrill cry, resembling the syllables *hi-hi-hi*, heard for the most part in the breeding season, especially in spring. This cry is said in some places to foretell rain, and the bird is locally known as the "Rain Bird"; in other districts it is widely known as the "Yaffle." Very handsome it looks as it crosses the open in the full sunlight in the usual dipping or waving flight peculiar to its kind. It may frequently be seen sitting far up the trees on a slender bough, and then should it call when the observer chances to be below, the singular loudness of the note is little short of startling. It is far more often noticed upon the ground than either of its relations, being specially fond of robbing ants' nests; and it may even be seen climbing and hopping about earth cliffs near the sea for a similar purpose. It climbs about the timber in a similar way, being very fond of keeping the trunk between itself and an observer, occasionally taking a peep round at him. It is for the most part a solitary species, save in summer, when it may be heard signalling to its mate by rapidly tapping the branches or trunks. The food is almost precisely the

same as in the other species. It lays its six or eight eggs in April or May, boring out a tunnel in trunk or branch, making no actual nest, and, as it pairs for life, often using the same spot for years in succession.

Our last Woodpecker-like bird is the **Wryneck** (*Iynx torquilla*). This bird belongs to the sub-family *Iynxinae*, which contains but four species, distinguished from typical Woodpeckers by their soft tails and beautifully marbled and pencilled plumage, which is very like that of the Goatsuckers and some of the Owls. The English species is also found widely distributed over Europe, Asia, and Africa; but the other three forms are confined to the last-named continent. Unlike the other allied birds the Wryneck is only a summer migrant to our shores, and is a local one, principally met with in the southern and eastern counties of England; rare in the west and in Wales, also in the north, especially in Scotland, and practically unknown in Erin's Isle. The ground colour of the upper plumage is pale grey, which is mottled and pencilled over with darker grey and various shades of brown; the wings are brown, with chestnut bars on the outermost feathers; the under surface is buff, spotted with dark brown. The Wryneck reaches us during the first half of April, and as its arrival synchronizes to some extent with that of the Cuckoo it is known in some places as the "Cuckoo's Mate" or "Cuckoo's Messenger." Its habits and the haunts it frequents closely resemble those of the Woodpeckers. It searches the timber for insects, but does not support itself by its tail in the process, sitting across the bark, and never apparently climbing. It spends much time on the ground hopping about ant-hills and searching for the larvæ which forms its favourite food. Its manner of feeding in these places is most interesting, its long protrusible tongue being shot out and in with amazing rapidity, the glutinous substance with which it is coated causing the tiny white eggs to stick to it. The bird also consumes vast numbers of full-grown ants as well. Although somewhat secretive and apt to be overlooked, its very characteristic and loud note of *heel-heel-heel* proclaims its presence from the time of its arrival until June is passed, when, however, it becomes silent. It may frequently be observed amongst the slender twigs, not

only picking insects from the leaves, but occasionally fluttering into the air in chase of them, and flies from tree to tree in the usual undulatory manner of Woodpeckers. The Wryneck pairs for life and returns to one breeding place for years. It does not excavate, but chooses a hole in the timber ready made, at the bottom of which it lays from six to ten pure white eggs. The hen will continue laying egg after egg if they be removed, but only one brood is reared each season. She is a close sitter, and very often when disturbed at her nest will hiss in a most alarming way, and when lifted from the nest will feign death, or contort and twist herself as if seized with a sudden vertigo. I ought to mention here that the Cuckoo is often heard in the woodlands, and seen flying from grove to grove, but we will reserve our notice of this species for another chapter (conf. p. 160). The Wryneck leaves England for the south in September.

Our next typical birds of the woodlands are the Crow tribe. Some half-dozen species are found in them, all belonging to the *Corvidæ*, another family of the great order *Passeriformes*, and containing some of the most perfectly organised of known birds. The Crows are the largest members of the order, possessing a stout and conical bill

(which is weakest and most curved in such forms as the Choughs), rather rounded wings, strong feet and claws, and scutellated metatarsi. Numbering some couple of hundred



FOOT OF CROW.

species, they may be described as cosmopolitan in distribution, the Raven representing the family in high Polar latitudes. Unfortunately we can scarcely class the **Raven** (*Corvus corax*) as a woodland bird nowadays. I do not know a single woodland at the present time where this species habitually breeds in trees, so we had better reserve our account of him until we reach wilder haunts. He is, however, typical of the genus *Corvus*, which possibly contains some thirty species. The **Carrion Crow** (*Corvus*

corone) is, nevertheless, still a fairly common bird in many woodland districts, besides being a familiar object on the rocky coasts. It is decidedly of an English type, the predominating species in Scotland and Ireland being the Hooded Crow, of which more anon. The plumage of this bird is black. The Carrion Crow is a little larger and sturdier than the Rook, and may always be distinguished by having the face and upper throat covered with feathers, and the metallic reflections in the plumage are green instead of purple. Young Rooks, before they have got their bare face, might easily be confused with Carrion Crows, but the latter bird at all ages has concealed white bases to the feathers, whilst in the former species the similar small feathers that clothe the body are grey at the base. The Carrion Crow is ubiquitous, and may be met with on the barest downs, the mountains, moors, and sea-coasts, as well as in the woodlands. It is, however, as an arboreal species that we will consider him now. In woodland districts, and especially nowadays, when its numbers have been so reduced by gamekeepers and others, the Carrion Crow is for the most part a solitary bird. Waterton speaks of seeing parties of fifty congregated in the autumn and winter; but we must remember that this was many years ago, and in that paradise for birds, Walton Park, that the famous squire set apart entirely for the encouragement of every wild creature, with no regard to its evil character; and he also adds that he turns "loose on the public from my park about threescore Carrion Crows per annum." I know of no woodland nowadays that can beat such a record. Waterton was a warm defender of this bird; but I fear there are few game-preservers or poultry-keepers that will endorse his statements. On sentimental grounds, I for one should be sorry to see him completely banished from the woodlands. His depredations, however, amongst eggs and poultry are great, although as a set-off he destroys many noxious insects and grubs, and is to some extent a valuable scavenger. The student will require to be an early riser indeed to be abroad before the Carrion Crow. Its hoarse cawing note is heard frequently before dawn, and is one of the last to sound through the woods at nightfall. The Carrion Crow prowls about almost everywhere in quest of food. You may see

it upon the pastures and fallows, poking about farm-yards and buildings, or near the keepers' coops and runs where Pheasants are being reared. The bird will not hesitate to make a meal upon any living thing it can capture or overcome, besides consuming grain, acorns, and even potatoes. This Crow pairs for life, and if left undisturbed will use the same nest season after season. It lays in April and May. In the woodlands it makes a bulky nest at the top of some lofty tree. Externally it is composed of sticks cemented with clay; internally it is formed of roots, wool, moss, and hair. The three to six eggs are green, of various shades, spotted and blotched with brown. The young are tended most assiduously by their parents, even for some time after they leave the nest.

Our old friend the **Rook** (*Corvus frugilegus*) may be again alluded to here, for if it frequents the fields to feed it resorts to the woodlands to breed. I have on rare occasions seen nests of this bird in bushes, but trees are almost invariably preferred. The Rook is found in most parts of the British Islands throughout the year, trees and cultivated ground being, however, essential to its presence. It is not quite so big or so stout-looking as the Carrion Crow, has a violet or purple gloss to its coat, and after reaching maturity a bare and warty face and upper throat. Nine people out of ten would probably be unable to distinguish a Rook from a Crow, but these and the points already mentioned above will readily enable any one to do so. We have already watched the Rooks sedately walking about the fields in quest of food, or seen them passing through the spacious air at eventide. Now we will visit their homes in the trees. Rooks, as I am sure most readers are aware, breed in colonies, and resort to the same trees for time out of mind, building their large nests in masses or singly in or near the topmost branches, and carry on all their family operations with a noisy din that night itself barely succeeds in staying. Building operations commence very early in spring; in some of the southern English counties at the end of January, a month or more later in the north. In the tree-tops nests in all stages of completion may be seen—from the first half-dozen twigs to the huge piles of sticks, the accumulation of years. Birds in all directions are busy, breaking off twigs and

carrying them to their nests, coming from the adjoining fields with clay and turf, moss, wool, and any soft material they can pick up for lining purposes; others on every side vie with their neighbours in increasing the chorus of *caws*, or rock in silence on the swaying branches. Some birds may be seen sitting on their nests. These are the early ones already incubating their eggs; and it is most interesting to watch the arrival of their mates, who feed their sitting partners with satisfied croaks and much shaking of wings. As soon as there are eggs in a rookery the birds remain all night on the nesting trees, but otherwise they usually leave the place when the daily labour of building is done. The nests are made of similar materials to those used by the Crow, but they are as a rule shallower. The eggs are so similar in colour and size that I know of no reliable point of distinction between the two. Only one brood is reared each season, and as soon as the young can fly the nest trees are deserted for a season, but I should add that Rooks pay periodical visits to their lofty homes throughout the year, and are at all times gregarious. The Rook feeds on a great variety of animal and vegetable substances, and it may be added that all indigestible portions of this food are cast up in large pellets. The nest trees and the ground below them are strewn with great numbers of these.

In many woodland districts we shall also meet with the **Jackdaw** (*Corvus monedula*). It is a very adaptive bird, however, and makes itself equally at home in towns (conf. p. 263), and on many rocks both inland and on the coast, being, in fact, one of the most generally distributed of British species, and found in almost every part of the United Kingdom. It is the smallest member of the genus, and may easily be identified by its grey nape. The plumage generally is black, shot with green, most dense and glossy on the crown; the eye is dull white. The habits of this bird, in the woodlands especially, are very similar to those of the Rook; it is just as gregarious, just as noisy, its cackling cry being very characteristic, and the most melodious of all the Crow tribe in these islands. It may also readily be distinguished in the air, not only by its small size, but by the rapid and continuous beating of its rounded wings and its often uneven movements. Its

food is much the same as that of the Rook. Jackdaws prefer a covered site for their nests, and in the woodlands rear their young in holes in the timber. The size of the colony is therefore largely influenced by the amount of this special kind of accommodation. The birds never bore a hole for themselves, always selecting one ready made. There is a very large colony of Jackdaws in Sherwood Forest; another, but smaller, in the fine old trees in Richmond Park. The nest is made of sticks, vast quantities often accumulating in the larger holes and hollow trees, lined with dry grass, moss, leaves, wool, fur, and feathers. In very small holes scarcely any nest is made at all. The four to six eggs are pale blue or bluish green, spotted and blotched with brown of various shades and grey. The eggs of this species are much less heavily marked than those of the Crow or Rook, and of course are smaller. One brood only is reared, and after the young can fly the colony is deserted for a season, the birds resorting to the pastures and so forth.

By far the prettiest member of the Crow family found in the British woodlands is the **Magpie** (*Pica caudata*). Some five species of these Pies are known, of which the British form is the most widely ranging, being found over many parts of Europe, Asia, and North America. There is another one with a yellow bill in California, but the remainder are confined to the Old World. These birds have a long graduated tail, fairly long wings, and parti-coloured plumage, black and white predominating. The British Magpie is an inhabitant of wooded districts throughout our area, but has been sadly reduced in numbers, if not entirely extirpated, in many game-preserving districts. The throat, thighs, and most of the upper parts are black, shot with green and bronze; the rump is grey, the underparts below the throat white. The wings are black and white; the long broad tail beautifully shot with metallic purple, bronze, and green. The young resemble their parents in colour. There are few more attractive ornaments to the woodlands than the Magpie, his chattering notes, uttered most frequently towards dusk, and showy plumage, making him by no means easily overlooked. During the non-breeding season the Magpie is somewhat social, and frequently gathers into parties, especially at a

favourite roosting place; moreover, it is often seen in pairs all the year round, and numbers at times associate upon the fields in quest of food. Like most showy birds it is excessively wary, crafty also, and seldom allows one to approach it very closely, save during the nesting season. The Magpie is another life-paired species, and uses the same nest yearly. It is a somewhat early breeder, the eggs being laid in March and April. The big nest, placed indiscriminately in a high or low tree (sometimes in a bush), is a wonderful piece of work, a huge mass of sticks, cemented with mud and lined with the latter, surmounted with a basket-like dome or roof, with a hole for entrance, and finally lined with fine roots. The six to nine eggs are greenish or bluish in ground colour, more or less densely marked with brown and grey. They vary a good deal in colour, and it is not unusual to find a very pale one in a clutch of the usual colour. The Magpie is just as omnivorous in its diet as other members of the family, and is a great destroyer of eggs.

Our last woodland bird of the Crow family is the **Jay** (*Garrulus glandarius*), a member of a genus containing perhaps a dozen fairly well-marked forms. They are short-winged Crows, the tail being always more than three-fourths the length of the wing. They have only a slightly rounded tail, but the bill is stout and Crow-like. Jays are birds of showy plumage, and possess conspicuous crests. The pretty barred white, blue, and black wing coverts are also a special feature. The Typical Jays are confined to the Old World, being found in Europe, Asia, and North Africa. The Jay is still fairly common in the well-timbered parts of England and Wales, but in Scotland and Ireland it is far more local. This pretty species has a crest of greyish buff, striped and tipped with black; the upper parts are vinous brown, except the lower back and upper tail coverts, which are white; the tail is black, with some faint bars of blue; the wings are mostly black, relieved with white and the spangled patches already noticed. There is a black moustache, the throat is white, the breast and abdomen vinous; the vent and under tail coverts are white. The female and young are very similar in coloration. Although the Jay is somewhat shy and secretive, as well as wary and cunning, his noisy note is quite suffi-

cient to indicate his whereabouts. This note sounds something like the word *rark*, uttered in succession and in a variety of modulations. He is a resident in our woodlands, but at times flights of Jays have been remarked arriving in some of the eastern counties. The Jay is almost as omnivorous as the other Crows, and quite as destructive where eggs are concerned. It is also much addicted to peas and garden fruits, such as cherries and strawberries, whilst in autumn it consumes great quantities of acorns. Many of these are carefully hoarded, the bird burying them in the ground; but I am unable to say whether these treasures are ever dug up again. Certainly the Jay, quite unconsciously, thus plants many a future sturdy oak sapling. The Jay looks remarkably handsome during its drooping flight, when the strong contrasts of colour are fully displayed and the wings are beaten rapidly. The favourite breeding places of the Jay are those woods and coverts where plenty of undergrowth occurs and hollies are common. As the nesting season approaches (in April) the birds become far less noisy and even more skulking in their movements. Although they probably pair for life, a new nest is made each season. This is built at no very great distance from the ground amongst the tall underwood, a bush, sapling, ivy-covered thorn, or evergreen being preferred. It is cup-shaped, has no roof, and is made externally of twigs and slender sticks, sometimes cemented with mud, and lined with a thick bed of fibrous roots. The five to seven eggs are very similar in colour to the ordinary type of Blackbird's eggs, greenish in ground colour, mottled and freckled with olive brown, and often with a scratch or two of dark liver brown. When the young are fledged they still continue in company with their parents, the family party keeping together in some cases through the winter. It is such gatherings as these that convey the impression that the Jay is gregarious. There are few more pleasing scenes in woodland bird life than a troop of Jays. If alarmed the company keep well together, following one another in stages before the observer the whole length of the cover in practically a direct line. The keeper has noted this peculiarity, and numbers are thus driven right up to his deadly gun as he waits in ambush at the end of the wood or copse. The Jay moults

in July, and at this season numbers of its pretty feathers lying about the woodlands never fail to proclaim the fact.

Contrary to a widely prevailing popular belief the woods are by no means a crowded haunt of small Passerine birds. The larger woods are visited from time to time by some, especially in winter, and one or two others reside in the more open spots or near the streamlets, but small birds chiefly frequent the borders of the woods, the well-timbered parks, and the spinneys and copses. One of the most characteristic of these small woodland birds is the **Creeper** (*Certhia familiaris*). It belongs to the small family *Certhiidae*, which contains about twenty species. These little birds are distinguished from the rest of the order, *Passeriformes*, by their long slender curved bill, with no bristles round the gape, and Woodpecker-like tail, the feathers in the latter having pointed and stiffened shafts. As in the Woodpeckers, however, there are some species with a soft tail, the beautiful **Wall Creeper** (*Tichodroma muraria*), found in many parts of South Europe and an accidental visitor to England, being an example. The legs are slender, the wings usually somewhat rounded. They are inhabitants of Europe, temperate Asia, and North America. The Creeper is a fairly common resident in our islands, being found in almost every district where timber is plentiful. The Creeper's upper plumage is a pleasing mixture of barred and spangled buff and brown, the under surface a clear silvery white. Its ways are very like those of the Woodpeckers, for it passes most of its time in creeping fly-like about the trunks and branches, picking out lurking insects and larvæ with its long slender bill. There are few more unobtrusive and silent little birds amongst the timber, and as its plumage so closely resembles the tints of bark and branch it is very apt to be overlooked. It has a feeble note sounding like *weet*, most frequently heard during the early part of the breeding season. It makes a rustic little nest of slender twigs, roots, dry grass, strips of bark, and moss, sometimes with a little wool or a few feathers added, placing it in some cranny of the timber, behind a bit of loose bark, in a hole in a trunk, or even under thatch. The six to nine eggs are white, spotted

with reddish brown and grey. The Creeper is for the most part solitary, but sometimes fraternizes with Tits. I have never heard this species attempt to sing, neither does it ever tap the branches with its bill as the Nuthatch so frequently does. I have seen it stated that the Creeper never clings head downwards to the bark, but this is certainly a mistake.

Yet another little Passeriforme, with very Woodpecker-like ways, haunts the woodlands, and that is the **Nuthatch** (*Sitta cæsia*). It belongs to a small family (*Sittidæ*), containing between twenty and thirty members, distributed over many parts of the world, but absent from South America, Oceania, and Africa south of the Desert, although one species is peculiar to Madagascar. The Nuthatches have a strong, chisel-shaped bill, long wings, a short, soft tail, short and scutellated metatarsi, large feet, and long sharp-curved claws. The British Nuthatch is of only accidental occurrence in Scotland, and entirely absent from Ireland, being most common in the southern counties of England. It is a blue-grey above, with dark wings and tail, the latter relieved with white; there is a white eye-stripe, a black band on each side of the head, and the underparts are chestnut, becoming nearly white on the throat. The female and young are similar in colour. The Nuthatch is just as active amongst the trees as the Creeper, and his brighter colours render him of course far more conspicuous. He is also constantly drawing attention by his repeated tapping of the timber, and by his loud, clear note of *whit*. He feeds largely on insects, searching for them on trunk and branch as he creeps about the bark, but is also very fond of nuts and berries, which he places in some convenient chink to hammer the hard shell and obtain the kernel within. In spring he eats many buds, and may often be seen among the slender twigs fluttering and skipping about like a Titmouse. The Nuthatch is a solitary little creature, but sometimes associates with Titmice and Creepers. It breeds in April, making a slight nest of bark flakes, dead leaves, and dry grass in a hole in a tree, and laying six or eight eggs, white spotted, with reddish brown and grey. An interesting peculiarity about this bird is its habit of plastering up with clay the entrance to the nest, should the hole

be too large for its requirements. It pairs for life, and uses the same hole yearly.

From the Nuthatches it is an easy step to those other active small tree-haunting birds the Titmice (*Paridae*). This family contains about one hundred species, of which the Great Titmouse or Oxeye is one of the largest. These birds have a stout conical bill, short and scutellated metatarsi, strong feet and claws, and rather short and rounded wings. The tail varies considerably in form and length, even amongst the British species. Titmice are most abundant in the northern hemisphere, but are absent from Madagascar and South America. Half-a-dozen species are resident in our islands, most of them being common, well known, and widely distributed. All are timber-haunting birds, but, with the exception of the Crested Titmouse, they are by no means confined to the woodlands, and at one time or another of the year may be met with almost everywhere. With this proviso we will proceed briefly to notice the most thoroughly woodland species. By far the most local, as it is the most arboreal, I may first name the **Crested Titmouse** (*Parus cristatus*). Some naturalists include as many as sixty species in the genus *Parus*, the members of which are distinguished from other members of the family by having the nostrils covered with feathers and the tail short and even. They are mostly northern and temperate birds or found at high elevations in the tropics. The Crested Tit in our islands is only known to breed in Scotland in the pine forests, oak woods, and birch coppices in the valley of the Spey and some neighbouring rivers. It may be distinguished from all other British species by its conspicuous black and white crest. Another, and, of course, much commoner and widely distributed species is the **Coal Titmouse** (*Parus ater*), found wherever there is timber in almost every part of the British Islands, but specially fond of birch and oak coppices, pine woods, and fir and alder plantations. It has a black head and white *nape* and cheeks.¹ Then there is the **Great Titmouse** (*Parus major*), the largest of all, about as big as a Sparrow, and further readily distinguished by the broad black stripe

¹ Continental examples of this species have greyer backs in winter plumage, and are said to be subspecifically distinct.

down the centre of the breast and abdomen, of similarly wide dispersal. It is commonly seen in the woodlands, but is by no means confined to them. Then we may also mention here the **Blue Titmouse** (*Parus caeruleus*), a species almost too well known to require description, and readily identified by its azure blue crown and wing coverts. The habits of all these species are very similar. All are more or less social and gregarious during the non-breeding season, fraternizing not only with their own species, but with each other, and such arboreal forms as Creepers, Nuthatches, and Goldcrests. The broods and their parents commonly keep together throughout the autumn and winter, and in the former season the numbers of resident individuals of all but the Crested Tit are in many localities increased by arrivals from the Continent. There are no more active birds upon the trees, and their movements, grotesque attitudes, and ceaseless antics are ever a source of amusement to the observer. Never or seldom still for two minutes in succession, they may be watched amongst the slender twigs and branches, often swinging like pendulums, searching for seeds and insects, picking many of the latter from buds and leaves, then trooping off in somewhat feeble and dipping flight to resume their noisy labours elsewhere. The notes of each are distinctive, and furnish additional means of identification to the student. The Great Titmouse in spring makes a noise very much like the sharpening of a saw, a shrill *peek-ur, peek-ur*; the Blue Titmouse has a note like *chicka-chic-ka, kee, kee, kee*; the Coal Titmouse calls a loud and clear *if-hee-if-hee-if-hee*; whilst the Crested Tit trills forth a spluttering *ptur, re, re, re, re*. All utter a very similarly sounding *si-si-si*. They are almost omnivorous—insects, grubs, seeds, nuts, fruit, grain, buds, and offal (such as bones and suet) being eaten with equal gusto. None can be said to be musical, but all modulate their call-notes in a variety of ways during the love season. All may possibly pair for life, and the usual nesting place is in a hole of a tree or stump, but many other situations are selected according to the particular accommodation in any locality. The Great Titmouse sometimes makes a globular nest of moss and feathers in the deserted home of a Magpie. They

make warm nests of moss, wool, dry grass, hair, feathers, and so forth, felted well together into a pad-like mass. The eggs vary from five to eight or a dozen, the smaller species, as a rule, laying the most, and are white, spotted with reddish brown and grey. In many cases two broods are reared in the year. During the breeding season Titmice are somewhat secretive and comparatively silent. They are most in evidence in autumn, becoming more nomadic and scattered as winter draws on.

The delicate-looking **Goldcrest** (*Regulus cristatus*) is another fairly familiar bird of the woodlands. This species enjoys the distinction of being the smallest British species, and belongs to a very limited family, the *Regulidae*, containing some half-dozen members only. These little birds have a remarkably slender, long, and straight bill, the nostrils generally being covered by a single stiff feather and the gape beset with bristles. They have long slender legs, rounded wings, with the bastard or first primary very small, and a rather long and slightly forked tail. The forehead is adorned with a crest containing a central streak of yellow, orange, or ruby. The distribution of the family includes Europe, North Africa, and the Atlantic Islands adjoining, Temperate Asia, and America, from Mexico northwards. The Common Goldcrest is found in all wooded parts of the British Islands, and is increasing its area with the extension of larch and fir planting. It is olive green above, greyish brown below, the wings and tail brown, margined with yellow, the former with two dull white bars across the coverts; there is a black line on each side of the forehead, which enclose the orange-yellow crest. During summer this charming little bird is chiefly found in larch, spruce, and fir woods, but in small numbers also frequents shrubberies. Its sweet and delicate little song may be heard in the woods early in spring, and it is resumed in a great many instances in autumn by those migrant individuals that reach our shores from October onwards. The actions of this bird very much resemble those of the Titmice; it is a restless little creature, constantly hopping about the twigs and leaves, and placing itself in a variety of attitudes when searching for the insects and small seeds that constitute its food. In April or May it makes

an exquisitely pretty nest, slung purse-like from some drooping branch, and formed externally largely of moss and spiders' webs studded with lichens, and lined with hair and feathers. The six or eight eggs are reddish white, freckled with brownish red. Both parents are shy and retiring during the breeding season; but when the young can fly they become much more obtrusive and social. In autumn Goldcrests are often met with in flocks, in the birch woods especially, where the tiny catkins are a great attraction, and now they fraternize with Titmice freely. As the winter comes on these bands mostly disperse.

Very like the Goldcrests in general appearance, but wanting the bright conspicuous crest, we have the several species of Willow Warblers, all of which are frequently to be met with amongst the trees. They belong to the Thrush family (*Turdidæ*), and are included in that section (*Sylviniæ*) of it in which the metatarsi are scutellated, and the young in first plumage are unspotted. The Willow Warblers are associated in the genus *Phylloscopus*, and number some twenty-five species. They are slim, graceful little birds of a predominating green and yellow hue, a rather broad Flycatcher-like bill, the gape beset with rictal bristles, a slightly forked tail and lemon yellow under wing coverts and axillaries. Three species are indigenous to the British Islands, all summer migrants only. The earliest to arrive in spring (at the end of March or early in April) is the **Chiffchaff** (*Phylloscopus rufus*), found most commonly in England, rarer and more local in Scotland and Ireland. It is of a dull olive green above, yellower below, and has black legs. It has no real song, but from the time of its arrival right through the summer may be heard almost incessantly calling *chiff-chaff* from the trees. It feeds on insects, for which it is constantly on the search among leaves and twigs, occasionally catching them in the air; whilst in some localities it also eats various small fruits. It makes a semi-domed nest amongst the grass, or a few feet above it amongst rank vegetation. This nest is formed of dry grass, dead leaves, and bits of moss, and is warmly lined with horse-hair and feathers. The five to seven eggs (laid in April, May, or June) are white, sparingly spotted with dark or

pale reddish brown and grey. It is not a social or gregarious species, but numbers may be seen in one vicinity. It leaves us in September and October. The **Willow Warbler** (*Phylloscopus trochilus*) is far more widely and generally distributed, and may be said to occur in summer wherever there are trees and bushes. It resembles the preceding species, but is slightly larger, yellower in general coloration, and has pale brown legs. Its habits are very similar, but it possesses a charming little song. As it is not quite so exclusively a tree bird we shall have occasion to allude to it in greater detail in a future chapter (conf. p. 146). The largest, as also the rarest and most local, of this pretty trio is the **Wood Warbler** (*Phylloscopus sibilatrix*). It is found locally in England and Wales, becomes rarer in Scotland, and is only known to inhabit a few districts in Ireland. It is yellowish green above, with a lighter yellow eye-stripe; white washed with yellow below, the legs and feet pale brown. The Wood Warbler is the last to arrive, not being seen before the end of April, and confines itself more closely to the tree-tops than either of the others. It has a very characteristic song, if a song it can be described, consisting of a few distinct and rapidly following notes, running off into a harsh trill, the bird whilst uttering it quivering or shaking its plumage. It spends most of its time in the higher branches, searching for insects amongst the foliage, and is consequently somewhat difficult to see. It is also the shyest of the three species, resents observation, but otherwise resembles them in its habits. Its nest is made upon the ground in the woods, is semi-domed in form, and may always be distinguished by the absence of feathers from the lining, which usually consists of hair. The six eggs are white, very thickly freckled and spotted with coffee-brown and grey. It rears but a single brood, and leaves its summer haunts in September.

The woodlands are also the summer haunts of the **Nightingale** (*Daulias luscinia*). This bird, however, is not a Warbler at all, but a *Thrush*, and is included in the same sub-family (*Turdinæ*) of the *Turdidæ* as the Song Thrush and the Blackbird. It is probably very closely related to the Robin. There are three species in this genus (or sub-genus) found in Europe, Asia, and Africa. They

are all soberly coloured brown birds with a chestnut tail, and the nestlings of course are spotted like young Thrushes. The English Nightingale is one of the most local of our summer migrants, and is quite unknown in Scotland and Ireland. It is found from Yorkshire southwards, but although visiting Wales is practically absent from the south-west of England (Devon and Cornwall), being most abundant perhaps in the home counties. It is rufous brown above, paler brown below, and the tail is rich chestnut. The Nightingale reaches its English haunts from the middle of April onwards, and though it does not frequent the trees, woods, copses, and spinneys are its favourite resorts, where it keeps more especially to the dense underwood and thickets, showing a decided preference for those where the ground is soft and swampy. Of course the chief point of interest about the Nightingale is the charming song, which I may be pardoned for saying (in view of the errors of poets) is confined entirely to the male bird. We might as well attempt to paint the lily as to essay to describe the witching melody of the Nightingale. The song, however, is by no means heard at night only, the woodlands resound with it all day long as the birds answer each other in the leafy shade. This is chiefly remarkable just after the birds' arrival here; later on, when nesting commences, the cocks are most musical at dusk; and throughout the laying and hatching period they sing at intervals all night long, in suitable weather. As soon as the young are hatched the music ceases for the season, and the male utters the familiar croaking call-note only. There are few more retiring skulking birds in the woodlands, and all we usually get is a fleeting glimpse of a red tail disappearing under the thick bushes or a momentary peep as the bird flits across a glade or rises startled from some open spot where it has been feeding. Its actions on the ground are very Robin-like; it flicks the tail and wings in a similar manner, bobs up and down, and from time to time pauses apparently to listen intently. Its plaintive call-note of *weet* is also very similar to that of the Robin, and it feeds on much the same fare—worms, insects, and larvæ, and various small fruits. It breeds in May, making its nest on the ground amongst rank vegetation in the woods or in their near vicinity. It is something

like that of the Robin in general appearance, and specially remarkable for the quantities of dead leaves (notably of the oak) in the materials, usually in addition to them dry grass and moss; it is lined with roots and horsehair. The five or six eggs are dark olive brown or bluish green marked with reddish brown. The Nightingale migrates south in August and September.

Passing mention may here be made of the **Redstart** (*Ruticilla phanieurus*), a representative of another Turdinæ group of some dozen species. The males are rather showy Chat-like birds; most of the species of both sexes have a chestnut rump and tail, and every one has black legs; the bill is slender and beset with rictal bristles. Redstarts are most abundant in species in the Himalayas, but are also found in other parts of Asia, Africa, and temperate and southern Europe. The Common Redstart may be seen in various other localities as well as woodlands, and we shall have occasion to mention it elsewhere (conf. pp. 17,



REDSTART.

173). It is, however, a fairly common denizen of such open timber as birch coppices and parks, and haunts the sides of woods where old walls are frequent. Like many another showy bird the Redstart is retiring and shy, the male especially so. It is found during summer in most parts of England, but seems everywhere local, and becomes increasingly so in Scotland, whilst its visits to Ireland are fitful and abnormal. The male has a black and white forehead, black throat and sides of the neck, grey back and chestnut underparts; the female is mostly sandy brown, but has a similarly chestnut tail. This species arrives in England in April, often in small parties, and the males several days in advance of the females. Shortly afterwards the males may be heard in song. This though sweet in parts is somewhat monotonous, and at all times very easily escapes notice altogether. It is during the singing period that the Redstart is most frequently seen in the higher trees, for the cock bird often selects an elevated perch from which to warble. This species feeds

chiefly upon insects and larvæ, occasionally chasing the former on the wing. The Redstart breeds in May, making a nest of dry grass, moss, wool, and leaves, lined with hair and feathers, in a hole in a tree, rock, or wall. The six to eight eggs are pale blue. Redstarts become very anxious if the nest is approached when it contains young, and incessantly utter a very plaintive cry, the female occasionally making a hissing noise. As the autumn approaches these birds become very secretive and retiring, continuing so through the moulting season in July and August, and taking their departure in September.

The **Misselthrush** (*Turdus viscivorus*) is perhaps the most thoroughly arboreal of the British Thrushes. These Thrushes belong to the same sub-family (*Turdinæ*) as the Redstart and the Nightingale, but form the genus *Turdus*, of which close upon fifty species are recognised. The Thrushes are very closely related to the Ouzels (of which our Blackbird is a typical one), but differ from them in always having a streaked throat and in many cases spotted underparts, whilst the sexes are practically alike in colour. Thrushes are richest in species in South America, but the genus is represented in most other parts of the world, except Australia. The Misselthrush is the largest British species, and is now widely dispersed over our area in all timbered districts, although it has reached many localities within recent times. Thus a century ago it was, I believe, unknown in Ireland, or so rare as to be overlooked; now it is widely dispersed and steadily increasing. It may be distinguished from all other British species by its greyish olive colour, large spots on the underparts, white axillaries, and white patch on the two outermost tail feathers on each side. Its harsh grating cry and boldness when its nest is approached are very characteristic, and its loud, wild melody, something like that of the Blackbird, is one of the few songs that cheer the woods in the stormiest months of the year. He ceases to sing in April, when our other Thrushes are becoming most inusical, regaining his voice in early autumn to continue musical through the winter. He usually sings from a perch in the trees, and, unlike his congeners, prefers to build his nest in them at some height from the ground and in a fork close to the trunk. It is

made of dry grass, moss, and twigs, cemented with mud, and lined with fine grass. Very often a large tuft of wool dangles from the side, and though such a conspicuous nest, *when we know exactly where it is*, it frequently escapes discovery even in the most exposed spots. The four eggs are bluish, or greenish, or reddish in ground colour, spotted with brown and grey. These are laid in February or March, and those for a second brood in July. For some time in autumn this Thrush is gregarious, and spends most of its time in the fields. It feeds on worms, snails, grubs, berries, and fruit, but not in any way specially upon the berries of the mistletoe, as is so popularly supposed. I ought to add that all the other British Thrushes are seen commonly enough amongst the trees (especially the Redwing), but notwithstanding this fact their usual and favourite haunts are elsewhere. The **Pied Flycatcher** (*Muscicapa atricapilla*) is almost too local and rare a species to require notice here. It is a summer migrant, and breeds chiefly in mountain woodlands and coppices. The male is black and white; the female grey and white. It breeds in a hole in the timber, or failing this a crevice in a wall or rock, making a slight nest of dry grass and feathers, and laying six or eight pale blue eggs. We shall later on meet with another Flycatcher, and then will give some particulars of the group in general (conf. p. 174). The Wood Lark we have already met as a denizen of the "spacious air" (conf. p. 14). It remains now to be said that this bird habitually breeds amongst the woodlands, parks, or well-timbered country, and that we shall meet with it again in another haunt (conf. p. 96).

Of the smaller special birds of the woodlands there now remain but one or two for notice, and these belong to the family of Finches (*Fringillidæ*). The Finches form one of the largest, best defined, and homogeneous families into which the *Passeriformes* have been divided. They number some five hundred species, representatives being found in most parts of the world, although it is interesting to remark that there are no Finches in the entire Australian region, where the Weaver Birds (*Ploceidæ*) replace them. The most noteworthy feature in the Finches is the strong conical bill, in which the nostrils are situated near the base, and more or less concealed by a membrane or stiff

plumes. This bill, however, varies to an astonishing degree, attaining its greatest size and strength in the Hawfinches and Grosbeaks; it is most slender in the Goldfinches, shortest in the Redpoles, the two mandibles are crossed in the Crossbills, and the chin angle (gonys) is specially prominent in the Buntings. The metatarsi are somewhat short and scutellated in front. The wings contain nine primaries only, and may be long and pointed or short and rounded. The tail, varying a good deal in shape and length, contains twelve feathers. The difference in colour between the sexes is pronounced in most cases, the nestling resembling the female. Three sub-families are recognised; the Hawfinch is typical of one, the Chaffinch of another, and the Yellow Bunting of a third. One arboreal species is the **Siskin** (*Chrysomitris spinus*). It belongs to the pointed and slender-billed division of the Finches contained in the sub-family *Fringillinæ*. These birds have a smaller and less powerful bill than the Hawfinch section, and the nasal bones do not extend backwards beyond the base of the skull. The Siskins (*Chrysomitris*) are a group of small Finches, remarkable for their prevailing green and yellow plumage and black crown. They have an acute conical bill, short tail, and metatarsi and long-pointed wings. They are found widely distributed over Europe, Asia, and Africa, and are abundant in America. The Siskin is chiefly confined to the conifer woods of Scotland during the summer, but breeds locally in England and Ireland. In winter it is more widely dispersed, and then may be found in birch and alder trees especially. It is green, yellow, and black, the black crown and striped black flanks of the male being very characteristic; the female wants the black on the crown and chin. It is very Tit-like in its habits, and possesses a sweet little song. Its nest is built generally in the fir-trees (from twenty to forty feet above the ground), and is made of twigs, grass stems, and roots, lined with moss, down, hair, and feathers. The five or six eggs are pale bluish green, spotted with dark reddish brown and grey, and often scratched with darker brown. Two broods are reared, the eggs for the first being laid in April, for the second in June. In woods of a similar growth the **Crossbill** (*Loxia curvirostra*) finds a congenial summer haunt. But three pronounced species of Crossbills are known. These birds

are distinguished from all other members of the family by the two crossed mandibles. One of them is indigenous to the British Islands, breeding chiefly in Scotland and Ireland, but occasionally in England, where, however, it is best known as a winter visitor to the woodlands. The adult male is scarlet, the wings and tail brown; the female is greenish yellow, with similarly coloured wings and tail to the male. Crossbills are exceptionally social birds, wandering about in parties amongst the trees, and even in spring the gregarious instinct does not altogether lapse, for they may be found nesting in small colonies. The male utters a low, sweet song, and the loud call-note of *si-si-si* frequently draws the student's attention to the restless flocks. In addition to insects and larvæ, this bird feeds largely on the cones of spruce and larch, and will split open an apple with its powerful crossed beak to get the pips. The nest is very often made at some considerable height in a Scotch fir, and is made of twigs, roots, and dry grass, lined with wool, feathers, and hair. The eggs, laid from February to April, are four or five in number, whitish, spotted with reddish brown and grey. They cannot be distinguished with certainty from those of the Greenfinch. The Crossbill is excessively shy throughout the nesting period. The pretty **Brambling** (*Fringilla montifringilla*) and the **Hawfinch** (*Coccothraustes vulgaris*) may also be met with in the woodlands, the former (which is a winter visitor to us) frequently crowding on the tree-tops in a twittering throng, especially in beech woods, where the mast is an attraction; but both species will receive more detailed notice elsewhere (conf. pp. 165, 168). Then again the **Wren** (*Troglodytes parrulus*) is often met with in woods; and the curious **Grasshopper Warbler** (*Locustella naevia*) breeds frequently in plantations; these birds, however, more generally affect other localities (conf. pp. 146, 148).

Our next typical birds of the woodlands are the Pigeons (*Columbidæ*), of which we shall come across three species. The Pigeons constitute a very distinct and homogeneous order, termed the *Columbiformes*. Their chief external characteristics (all that can be dealt with in a work of the present kind) are the somewhat Plover-like bill, which is swollen at the tip, and covered at the base with soft skin in which the nostrils (partly concealed by an incumbent

valve) are situated. The plumage is dense and compact, and there is no aftershaft to the contour feathers. There are eleven primaries, but the tail feathers vary from twelve to twenty in number. About 470 species are known, cosmopolitan in distribution, and most abundant in the Australian zoological region. The order is made up of five families, two of which are represented in the British area. The commonest woodland Pigeon in our islands is the **Ring Dove** (*Columba palumbus*). It belongs to the family *Columbidæ*, the birds in which are characterised by having a short metatarsus, twelve tail feathers, and the soles of the feet of moderate breadth, the skin on the side of the hind toe only being exceptionally expanded. The Ring Dove is one of a genus containing some sixty species, mostly with slate-grey plumage glossed on the head, neck, and breast with metallic sheen. They are found everywhere except in the Australian region. The Ring Dove is a resident throughout the woodlands of the British Islands, and may be identified, even during flight, by its large size, white bars on the wings, and white patches on the sides of the neck. The rich, loud full *coo*-ing note of the Ring Dove is one of the most characteristic sounds of the woods in spring and early summer. It is more or less gregarious at all seasons, and though one of the shyest of birds in the woods, has become remarkably tame and confiding in the London Parks, where its increase of late years has been a most interesting ornithological event. I should say that its numbers are largely increased in autumn by arrivals from the Continent. Its food, mostly obtained on the fields, consists chiefly of grain, fruits, berries, nuts, and tender shoots of herbage, especially clover. It rears repeated broods during the months from March to September, making a slight platform-like nest of sticks in trees and bushes, and lays two white eggs for a clutch. The second best known species is the **Stock Dove** (*Columba ænas*), but this bird is not only more local, but also frequents the coast and inland quarries and warrens. It is found pretty generally over England, and breeds sparingly in Scotland and Ireland. The Stock Dove is a much smaller bird than the Ring Dove; the black wing bars are incomplete; there are no white patches on the neck, and the back is grey. Its note is also far less rich and

musical, being a grunting *coo-oo-up*. The habits of this bird in the woodlands are very similar to those of the preceding, but there are variations in its economy which I will allude to in future chapters. It is a rather social bird during the breeding season (which extends from May to August), and several nests may frequently be found in one vicinity, as, for instance, in Sherwood Forest. This Dove prefers to breed in holes of trees, or in the deserted homes of Crows and Magpies, and amongst dense ivy. A favourite situation is on the top of a pollard willow or other tree. The nest is a mere platform of twigs, roots, or straws, and the two eggs are white, with a very perceptible tinge of yellow. Our last woodland Pigeon is the **Turtle Dove** (*Turtur auritus*). This bird belongs to the family *Peristeridae*, or Ground Doves, in which the metatarsus is equal to or longer than the middle toe, and the tail contains from twelve to twenty feathers. The family is subdivided into no less than seven sub-families, the Turtle Dove belonging to the section called the *Turturinae*. These birds are distinguished by having no hackle-like feathers on the neck, which is decorated with a more or less distinct collar of dark scale-like feathers. Some twenty-eight species are included in the genus *Turtur*, all confined to the Old World. The British Turtle Dove is of somewhat local distribution in England, does not appear to breed in Scotland, and is rarer in Ireland than in England. It is a summer visitor only to our area, and may be distinguished by its pale coloration and black and lavender-coloured collar. The Turtle Dove arrives early in May, and finds its favourite summer haunts in woods and well-timbered country. It is by far the least gregarious of the British Pigeons, and apparently pairs for life. Somewhat shy and secretive, it is often detected solely by its soft cooing note in early summer. It feeds chiefly on insects, grain, seeds, fruit, and the tender shoots of various plants, seeking much of its food in the fields. As it may be found nesting from May onwards to August, there can be little doubt that in many cases two broods are reared in the season. It makes the usual platform-like nest of thin sticks in low trees, and very frequently in tall hedges, and lays two eggs of a creamy-white colour. It departs for the south in September. On migration this bird is often to be seen in companies.



PLATE III.—PHEASANTS. THE TRAGIC SIDE OF GAME PRESERVING.

The woodlands have almost everywhere been turned into artificial preserves for that gaudy alien bird, the **Pheasant** (*Phasianus colchicus*). The Pheasants are associated with the Jungle Fowl and the Pea Fowl in another section or group of the *Phasianidae*. In these birds (unlike the Partridges, conf. p. 37) the first primary is much shorter than the tenth, or, if longer, the tail is also longer than the wing, and the sides of the head are either feathered or entirely naked. More than ninety species are included, all, save one African form, confined to Asia; but various species have been introduced into Europe and other parts of the world. Some eighteen species are included in the genus *Phasianus*, characterised by their very long graduated and wedge-shaped tail, which contains eighteen feathers. The metatarsi, of moderate length, are, in the male, armed with a conical and sharp spur. The Pheasant is said to have been brought to the British Islands by the Romans; and is now a resident in all parts of them where it is afforded protection by man. It is far too well known to require detailed description here. There can be no doubt about the grace of form and beauty of plumage of this handsome bird, and its habits are of great interest to the naturalist; but when we remember how so many of our indigenous, beautiful, and useful species have been persecuted and exterminated under the sole excuse of Pheasant breeding, we may well ask ourselves whether the presence of that species is an evil and not a beneficial one. Indeed, the evil assumes a much graver aspect when we consider it from a purely human point of view. Think of the men who have lost their lives or have been maimed and injured either in the effort to protect the Pheasant or to effect its illegal capture! My friend Mr. Whymper has graphically illustrated this side of the Pheasant question—the loss of a valuable and useful human life in defence of a sporting master's property! There can be little doubt that the Pheasant would soon disappear entirely if man ceased to preserve it. It is a shy and timid creature, always preferring to run off



HEAD OF PHEASANT
(*Phasianus*).

under the brushwood or to sink flat to the ground rather than to take wing; but when flushed it rises with a bang and a whirr enough to startle a nervous person out of his senses, and hurries off through the trees to a quieter haunt. The crow of the male bird is one of the most characteristic woodland sounds, and becomes specially frequent towards nightfall. It is a short harsh cry resembling the word *cor-r-k*, and is usually followed by the bird flapping its wings vigorously. The Pheasant is a terrestrial species, but roosts in the branches. It feeds on grain, seeds, berries, acorns, mast, wild fruits, shoots of vegetation, worms, insects, grubs, and ants' eggs. In a wild state the Pheasant appears to be monogamous, but in our islands is more or less polygamous, and the female alone takes all charge of the brood. The hen makes a slight nest in some sheltered spot in wood or hedgerow on the ground in April or May, and there deposits from eight to a dozen or more olive-brown eggs. These are carefully covered when she leaves home for a brief interval, a wise provision that conceals them from prowling predatory birds and animals.

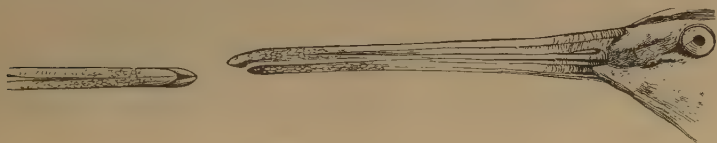
The **Capercaillie** (*Tetrao urogallus*), the largest of the order, was once indigenous to the British Islands, but became extinct. It has, however, been successfully introduced into the Scottish pine forests, but is yet a very local species, and only requires passing mention here. Another member of the same family and genus will be met with elsewhere, when this section of the Game Birds will receive detailed notice (conf. p. 94).



CAPERCAILLIE.

In our first chapter we casually alluded to the curious love flight of the **Woodcock** (*Scolopax rusticola*). We are now in the natural haunts of the Woodcock, and must say a little concerning him and his kindred. This bird forms one of the order *Charadriiformes*, in which are included the Bustards, Plovers, and Sandpipers, in all numbering close upon three hundred species, and practically cosmopolitan in distribution. The various charac-

ters, anatomical and otherwise, common to birds of this large order need not be given here in a work dealing only with open-air studies of Ornithology, a few of these particulars being sufficient as the representatives of the several families are met with in their haunts. In all cases the young are hatched covered with down, and able to run. The Woodcock forms one of the family *Charadriidæ*, belonging to that section of it which contains the cleft-footed Sandpipers and Snipes (*Scolopacinæ*). These birds are distinguished from other members of the order by having the toes cleft to the base, with no webbing between them, and the metatarsi is scutellated on both aspects. There are four species of Woodcocks contained in the genus *Scolopax*, characterised by having the bill twice the length of the metatarsus, and the large promi-



BILL OF WOODCOCK (*Scolopax*).

nent eye placed so far back in the head as only to be just in front of the ear orifice. Woodcocks are found in Europe, Asia, and North America. The British Woodcock is a local resident in our islands, breeding sparingly in many woodland districts, and from its secretive habits is probably much overlooked. It is the largest of the Snipes, weighing in some cases as much as sixteen ounces, although the average is about a dozen. The plumage of this well-known species requires little description here. If not acquainted with it in the woods, most students must have examined it in every game dealer's shop. The upper parts are chestnut, mottled and pencilled with black and grey, the underparts buff barred with brown. The silvery tips to the under surface of the tail feathers are also very characteristic. Many Woodcocks visit our islands in autumn, and it is then that the bird is most frequently met with. It is a ground bird, and obtains most of its food at night. Its favourite day haunts are the undergrowths in woods and plantations: at dusk it

seeks the nearest swamps and marshy banks of streams, even turnip fields, to feed. This food consists largely of earthworms, grubs, and beetles. Its flight when just flushed is usually unsteady and erratic, the wings making a whirring sound as the fat little bird rises hastily from our feet. It is ever a skulking bird, and the rich brown colour of its plumage aids largely to its concealment, especially amongst dead leaves. In April, as I have already mentioned, the male Woodcock indulges in curious love flights called "roding," flying slowly up and down the drives in the woods or under the trees at the borders, uttering a monotonous harsh and guttural cry. Should two males meet at these times a combat usually occurs. These flights last about a quarter of an hour, and are taken in the morning and evening. The female makes a slight nest on the ground in some cosy nook beneath the brushwood and fern or at the foot of a tree. It is little more than a hollow lined with a few bits of dry grass and dead leaves. The four eggs are laid some time in March, April, or May, and are yellowish or buffish brown, spotted with reddish brown and grey. There seems little doubt that the Woodcock conveys its young to suitable feeding places.

Woodlands are also the favourite breeding places of the **Heron** (*Ardea cinerea*). We shall have occasion to mention this bird elsewhere (conf. p. 213), but may here deal with its affinities and nesting economy. Herons, with the Storks, Spoonbills, and Ibises constitute the order *Pelargiformes*, which may be divided into two sub-orders, the typical Herons (*Ardea*) and the Storks, &c. (*Ciconiæ*). The Herons differ from the Storks and their allies in having the tongue well developed, mostly long and pointed,



BILL OF HERON (*Ardea*).

instead of being almost obsolete. They have a long compressed spear-shaped bill, and the outermost toes are webbed near the base. Herons have curious patches of

down-like feathers on the breast, hidden by the ordinary plumage, and which look almost like pieces of "cotton waste," technically termed "powder-downs." The middle claw is also serrated or pectinated. The order contains considerably more than a hundred species, and is practically cosmopolitan. The Common Heron of our British woodlands belongs to the *Ardeidae*, forming, with some few other species, the genus *Ardea*. The Herons in this genus have the metatarsus longer than the middle toe, including the claw, and the tail contains twelve feathers, the Bitterns having ten only. Although local, there are many colonies of Herons distributed over the wooded tracts of our islands, where for time out of mind the big birds have nested. In some places sea-cliffs are resorted to for this purpose. The Heron is one of the easiest recognised of our native birds; its large size, general blue-grey colour, long black crest, black and white neck, and black wings, making it a very conspicuous object. Then its slow deliberate flight is very imposing, seen to perfection as the big grey birds seek their roosting-places in the woods towards sunset, or settle with flapping pinions upon the topmost branches. Herons breed in colonies in a very similar way to Rooks, and engage in nesting duties about the same time, building in January and February and laying in March and April. During building operations the big birds may be watched picking up likely sticks under the trees and conveying them in their bills to the nest sites, one of a pair usually remaining at home to guard the unfinished structure. Both birds assist in building the big flat nest, in which sticks are mostly used, the finer ones forming the interior, although in some cases turf and moss are added. These nests are used annually, and as they are added to and repaired each season some of them are of enormous size, and little more than shapeless heaps of sticks. The three to five eggs are pale greenish blue. When the colony is invaded the frightened birds rise clattering through the branches from their nests and survey the scene whilst sailing gracefully about the air above the trees. The usual note of the Heron is a hoarse croak, but it is for the most part a very silent bird.

Two species of Owls specially make the woodlands their home. The Owls are very popularly regarded as

Birds of Prey, their hooked beaks, sharp long claws, and animal food assisting materially to strengthen the idea. There can, however, be little doubt that the Owls are Picarian Birds, and that their right place in the avine system is in the Order *Coraciiformes*, where they may be closely associated with the Nightjars. They form the sub-order *Striges*. Among their external characteristics may be mentioned the large round head and ear orifices, prominent eyes, not placed at the side, but directed forwards, and more or less complete facial disc or ruff of stiff plumes which surrounds the eyes. There is no after-shaft to the contour feathers, and the plumage generally is remarkably fluffy; the nostrils are placed in a cere at the base of the bill and are more or less concealed by stiff bristles; the bill is short, arched, and hooked at the tip; the metatarsi are mostly short and scutellated and more or less feathered to the toes, the latter being armed with long sharp claws; the fourth toe is reversible. The wings are long and ample, more or less rounded, and contain eleven primaries. The tail is short, of varying degrees of roundness, and contains twelve feathers. Many species have conspicuous erectile tufts of feathers on the head. The young are hatched covered with down. There is little difference in colour between the sexes, but the male is generally the smallest. Owls vary in size from that of a Sparrow to that of a Goose. There are more than two hundred species of Owls distributed over most parts of the earth. Two families are recognised, each represented in the British Islands. Our two woodland species belong to the *Bubonidæ*. The principal external characteristic of the Owls in this family is the absence of serration on the claw of the middle toe, and the latter is longer than the inner toe, instead of being nearly equal to it as in the other family. The best known species is the **Tawny Owl** (*Syrnium aluco*), which belongs to the group of Wood Owls. These birds have no tufts on the head, and the cere is shorter than the culmen. They are almost cosmopolitan, but absent from the Australian region. The Tawny Owl is fairly common in the woodlands of England and Wales, local in the southern parts of Scotland, and absent from Ireland. The general colour above is a mottled mixture of brown, black, and chestnut; the wing



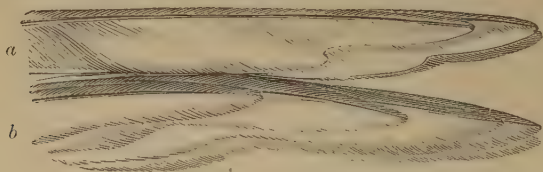
PLATE IV.—“WHAT'SH TIME?”

coverts are spotted with white, the underparts buff, streaked and barred with brown. This is the species that utters the deep hollow-sounding *hoo-hoo-hoo* from dusk onwards through the night. Sometimes he may be noticed asleep in the daytime sitting on a branch close to the trunk, and if disturbed he blinks and looks stupidly down at you, until finally realising his danger he spreads his broad brown wings and glides silently away. He of course seeks his food at night, which chiefly consists of mice, moles, rats, young rabbits, and belated birds. It may be found breeding from March onwards to August and probably pairs for life, although at other seasons it passes a solitary existence. It makes no nest, but lays three or four white eggs in a hole of a tree or cliff or in the deserted tenement of a Crow, Magpie, or Squirrel.

The **Long-eared Owl** (*Asio otus*) is chiefly found in coniferous woods, those of pine and fir being preferred. It is one of a group of seven species termed "Horned" Owls, because they have conspicuous tufts on the head; the cere is longer than the culmen. These Owls are just as cosmopolitan in distribution as the Wood Owls. The Long-eared Owl is far more widely dispersed than the preceding species, and is found in suitable places throughout our islands wherever it has not been exterminated by man. Although not in any way gregarious, several pairs not unfrequently reside within a small area. It is buff above, mottled with various shades of brown, the long head tufts being black margined with buff; the underparts are paler buff, streaked with rich brown and faintly barred with light brown. The habits of this species are much the same as those of the Wood Owl. It is a nocturnal bird, hiding away during daylight in any dark corner, hole, or old nest of a Crow, or even standing pressed close to a tree-trunk, coming out at night to feed on small animals. It usually lays its eggs (in February or April) in the old nest of a Crow or a Squirrel, those being chosen in the densest foliage. These are from three to seven, and white. This Owl is increased in numbers in autumn by immigrants from the Continent. The note is a mewling or barking cry.

Our last typical woodland species are the several Birds of Prey, of which, however, but two can be called

common. The Birds of Prey form the order *Falconiformes*, a most homogeneous group, easily diagnosed by the powerful sharp and hooked bill and basal cere, the lateral position of the eyes, and the long curved and sharp claws. Two sub-orders are recognised, one (*Cathartæ*) containing the single family of American Vultures, the other (*Accipitres*) including all the remaining species and divisible into four families. Some three hundred and fifty species are known, and the order is cosmopolitan. The British species are all included in the families *Falconidæ* and *Pandionidæ*, the former of which is again broken up into several sub-families. This family is much the most extensive one in the entire order, presenting great diversity of size, plumage, form, and habits, yet all members of it possess the same distinguishing features—a short, stout, curved and hooked bill, strong feet and claws, and powerful wings. The **Kestrel** (*Cerchneis tinnunculus*) is by far the best known of our two common woodland birds of prey. It belongs to that sub-family which contains the Typical Falcons (*Falconina*), the characteristics of which are the completely reticulated and never plumed metatarsi much shorter than the tibia, the slight basal web which joins the outer and inner toe, and the prominently toothed or notched bill. The Falcons are ex-



PRIMARIES OF RAPTORES.
a. Falcon. b. Hawk.

ceptionally long-winged birds, and the tail is more or less rounded. Our British Kestrel is one of a group of fairly distinct species remarkable for their short toes, long pointed wings, and rounded tail. They are almost cosmopolitan in distribution. We have already met with this pretty little Falcon, and alluded to its curious flight (conf. p. 16). It may be found in all parts of the British Islands, taking up its residence in treeless and maritime

districts as well as frequenting woodlands. The male has the head, neck, lower back, and tail grey, the latter broadly banded with black near the tip; the upper back is chestnut, spotted with black; the underparts are pale buff, streaked on the former and spotted on the latter with brown; the wings are brownish black. The female, perceptibly larger, has the entire upper parts chestnut, barred with black. Many Kestrels resort to the woods to breed, and their peculiar tremulous chattering cry becomes particularly noticeable in these localities during May. The Kestrel never makes a nest for itself, but lays its half-dozen reddish brown eggs in the old abode of some bird of the Crow tribe, a Hawk, or a Ring Dove. The bird probably pairs for life, rears but one brood each season, and lays its eggs late in April or in May. Mice and coleopterous insects form its principal food, but in rare instances small birds are caught. The indigestible portions of this food are cast up in the form of pellets—a practice common to the Birds of Prey. Wherever Kestrels occur they will be repeatedly seen hanging suspended as it were in the air above the trees, and if disturbed at the nest often soar to a vast height and move round in wide circles.

Our next woodland Falcon is unfortunately a rare one, the **Hobby** (*Falco subbuteo*), being by far the most local of the indigenous species belonging to this section of the family. These Typical Falcons (*Falco*) are distinguished by having a tubercle to the rotund nostril, exceptionally powerful feet and sharp claws, and the outermost toe in most species is longer than the inner one. The Falcons are found in almost every part of the world. The Hobby breeds sparingly in the south-eastern and midland counties of England as far north as York, but does not do so in either Scotland or Ireland. The male is slate black above, the tail barred with rufous; there is a very conspicuous black moustachial stripe; the underparts are rufous white, streaked on the breast and flanks with blackish brown; the thighs and under tail coverts are chestnut red. The female, as usual, is larger than her mate, is duller in colour, and the dark streaks on the under surface are broader. The Hobby is a summer visitor only to England, appearing towards the end of

April or early in May. Its sole haunts are woods and plantations, and it appears to return to the same haunts each season. It is a most dashing, courageous little bird, seizing its prey whilst swooping with impetuous speed, and capturing it with almost unfailing certainty. As might be surmised from its migratory habits, the Hobby feeds largely on such insects as cockchafers and dragon-flies, seizing them on the wing; but it also preys upon every bird that it is strong enough to kill. It does not hunt in the air like the Kestrel, but patiently waits in some elevated spot, whence it dashes off after any unsuspecting creature that may come within view. Like the Kestrel it does not make a nest, but brings up its brood in the old home of a Crow, Magpie, or Ring Dove, one usually being selected not only in a high tree, but in a secluded part of the woods. The three to five eggs are reddish brown, and cannot with certainty be distinguished from those of the Kestrel, so like them are they in colour. But one brood is reared, and the migration south begins in September.

The larger Birds of Prey are becoming increasingly local, and in many localities have been entirely exterminated. That observer may consider himself exceptionally fortunate who meets with the **Kite** (*Milvus regalis*). I call this bird a melancholy relic of our old-time avifauna,



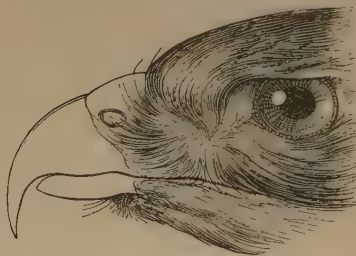
KITE.

for at one period it was absolutely abundant in the London streets, where it acted the useful part of scavenger. One has to journey far nowadays into eastern and southern countries to see such a sight as that. The Kites, with their kindred the Buzzards, form yet another sub-family (*Buteoninæ*) of the

Falconidæ. These birds are more closely related to the Eagles than to the Typical Falcons, and are characterised by having the back of the metatarsi scutellated like the front, and a bill that curves distinctly from the base. The Common Kite (what a misnomer to call such a bird "common") is one of the rarest and most local of our native species, but still continues to breed in one or two

places in Wales and Scotland. The Kite is reddish brown, streaked with pale buff above, the feathers on the head and neck being greyish white, streaked with brown, and elongated into hackles; the under surface is rufous brown, streaked with darker brown; the deeply forked tail is barred with dark brown. The female is larger than the male, and is redder brown below. This beautiful bird may be readily distinguished by the manner of its flight and the forked tail. For hours at a time it will soar and sail in spacious circles, with wide outspread wings and tail, the former with scarcely an apparent movement. It searches for much of its food in the open country whilst flying at a moderate height above the earth. This bird was once held in high esteem by the falconer as a quarry, its efforts, when chased, to reach the highest air affording splendid opportunities for the pursuing Falcon. It displays none of the dash of the Hawk or Falcon in striking its prey, usually capturing on the ground the small and often weakly birds and animals that compose its food. It also feeds on carrion and offal, and, like so many other raptorial birds, is in the habit of carrying off its captures to a favourite spot for consumption. The mewing note of the Kite is heard most frequently in the breeding season. It nests in the most secluded woods and forests, making its home in our islands invariably in a tree, a dense fir or pine by preference. The Kite makes its own nest. It is composed externally of sticks, intermixed in a most curious manner with an assortment of such rubbish as old rags and paper; whilst the lining of moss and wool is still further embellished with a miscellaneous collection of bones, rags, paper, string, hair, and so forth. The three or four eggs, laid in May, are white, often tinged with bluish green, in ground colour, blotched, spotted, and streaked with reddish brown, paler brown and grey. If disturbed from its home the sitting bird often rises to a great height, where, in company with its mate, it soars round in circles. The **Common Buzzard** (*Buteo vulgaris*) is another misnamed species nowadays, as unfortunately it has been exterminated in many woodland localities where formerly it occurred in fair numbers. The Buzzards are another fairly distinct raptorial group, somewhat like small Eagles

in general appearance. There is no tubercle to the oval nostrils, but a bony ridge above the eye, and the long tail is more than twice the length of the metatarsus.



HEAD OF COMMON BUZZARD (*Buteo*).

Buzzards are commonly distributed over the northern hemisphere, and several forms are peculiar to Africa. The British Buzzard is not only a resident in certain woodland areas in Wales and Scotland, and more locally still in Ireland, but is found breeding on certain parts of our rocky coasts.

I have taken its eggs in a large wood in the north of England, but that was many years ago, and most certainly no Buzzards breed in that locality now. Many Birds of Prey vary enormously in the colour of their plumage at different ages, the Common Buzzard especially so. Old birds are of a prevailing brown colour, but younger individuals have the plumage relieved by white streaks, and more or less white on the under surface; the tail is marked with a dozen dark brown bars. The Buzzard is a somewhat slow-flying and sluggish bird, but, like the Kite, is given to aerial ascents in a more or less spiral course. It feeds on small mammals, on birds, coleopterous insects, slow-worms, and frogs, catching them, however, with none of the brilliant swoop and dash so characteristic of the Falcon or even of the Sparrow-Hawk. Its note is a plaintive, mewling one, uttered more frequently during the nesting season. It breeds in April or May, apparently pairing for life, and using the same nest annually. This, in the woodlands, is often placed in the crown of a pine, but often a tall oak or a beech is selected. It is large and flat, and made chiefly of sticks lined with a quantity of green leaves, these latter being renewed from time to time. The two or three eggs vary from white to pale bluish green, spotted, blotched, and clouded with rich, reddish brown, paler brown, and grey, and present much variation in the amount of colouring matter. The **Honey Buzzard** (*Pernis apivorus*) may be named here. It formerly

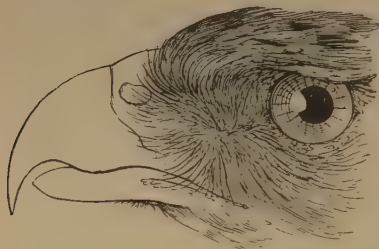
bred in some numbers in England, but is now almost, if not quite, exterminated. The New Forest was (and still may be) one of its famous retreats. It was a summer visitor only, arriving in May and leaving in September. All the Honey Buzzards are confined to the Old World, and may be readily distinguished by having the lores and the face generally covered with dense, scale-like feathers. They are long-winged birds, with a rounded tail. The Honey Buzzard makes no nest, but lays its two or three very handsome eggs in the nest of some other species. These eggs are very waxy in texture, cream in ground colour, richly and boldly marked with purplish brown. The plumage is brown above, except the head, which is grey, the underparts white, barred and spotted on the breast with brown. The female resembles the male in colour, but lacks the grey head.

Our last woodland Bird of Prey is the **Sparrow-Hawk** (*Accipiter nisus*), a representative of another sub-family (*Accipitrinæ*), which also includes the Harriers, the Goshawks, and certain other allied forms. They are all long-legged Hawks, the tibia and metatarsus being of exceptional and about equal length, whilst the outer and middle toe are joined at the base by a small web or membrane. We shall meet with other representatives of this sub-family elsewhere (conf. p. 130, 199, 200). The Sparrow-Hawk belongs to a genus containing some thirty species, which are characterised by their exceptionally small bill and very long middle toe. They have comparatively short rounded wings (conf. p. 84), and a long tail; they are nearly cosmopolitan in dispersal, but no species has been found in the Pacific Islands. Our British Sparrow-Hawk, next to the Kestrel, is the commonest bird of prey now met with in the woodlands, occurring in them as a resident species in every part of the United Kingdom. The cock bird (not much more than half the size of the hen) has the prevailing colour of the upper parts slate grey, relieved by a white patch on the nape; the wings and tail are brown, the latter barred with darker brown. The underparts are rufous brown,



SPARROW-HAWK.

barred with a darker brown. The hen is brown above, with a similar white nuchal spot, greyish white below, barred with brown. This bold little warrior bird may well be described as the terror of the woodlands. Daring and dashing in the highest degree, he wages relentless war upon all the smaller birds, and kills species much heavier



HEAD OF GOSHAWK (*Astur*).
(An accidental visitor only to the British area.)

than himself, capturing his quarry with an arrow-like swoop, and bearing it off to some quiet nook to be consumed. Although his wings are comparatively short and rounded he can fly with amazing speed, and few birds can either out-distance or out-manceuvre him in the air. This Hawk breeds rather earlier than the Kestrel, laying at the end of April

or early in May. The nest is made in the trees, either in a fork close to the trunk or at some distance from it on a broad, flat, horizontal branch, and is composed almost entirely of sticks, some of the twigs containing green buds and leaves. It is very shallow and bulky, and in some cases is used each season, or another one made in the near vicinity. The four to six eggs are pale greenish, blue spotted, and blotched with reddish brown, paler brown, and grey. The markings are often placed in an irregular zone. The old birds keep their young well supplied with food, and during this period become even more venturesome and rapacious. The Sparrow-Hawk has been trained to take various small birds, but is somewhat difficult to keep under restraint.



HAUNT IV

THE HEATHS, FURZE COVERTS, AND MOORS

CONTENTS: The Nightjar—The Stone Curlew—The Black Grouse—The Lapwing—The Wood Lark—The Stonechat—The Dartford Warbler—The Linnet—Other gorse-frequenting Birds—The Meadow Pipit—The Twite—The Ring Ouzel—The Red Grouse—The Merlin—The Golden Plover—The Curlew—The Snipe—The Dunlin—Skua Gulls—The Great Skua—Richardson's Skua—The Grey-lag Goose—The Whimbrel.

ONCE more our scene has changed. We have left the woodlands behind us, with their splendid cover and wealth of secretive bird life, and are now in the open treeless country in quite a different haunt, in the vicinity of timber perhaps, but where the ground is bare in places, clothed in others with heath and coarse herbage of many kinds, and relieved of its monotony by bushes and thickets. True, we may meet again with one or two species we have already met with elsewhere, but apart from this fact the haunt we are now in possesses, like all the others, very decided avine characteristics. Our journey this time will be rather a long one, and will cover a vast amount of changing ground and scene, ranging from the heaths and furze coverts, in comparatively cultivated country, right on to the moorlands, where we are face to face with nature in some of its wildest and most impressive aspects.

One of the most characteristic species of the heaths and commons is the **Nightjar** (*Caprimulgus europæus*), a bird we have already met with in other haunts (conf. pp. 14, 17). This curious wide-mouthed bird belongs to another sub-order (*Caprimulgi*) of the *Coraciiformes* (conf. p. 2), composed of three families, the Typical Goatsuckers (*Caprimulgidæ*), the Oil Birds (*Steatornithidæ*) and the Frog-Mouths (*Podargidæ*). The Goatsucker family numbers some eighty species, and is again divided into two sub-families, and our British species belongs to the *Caprimulginae*, distinguished by having four joints to the outer

toe, and a comb-like or pectinated edge to the claw on the middle toe. Nightjars are found in most parts of the world, but do not range into polar latitudes, and are

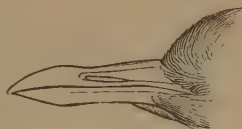


HEAD AND FOOT OF NIGHT-
JAR (*Caprimulgus*).

absent from the Pacific Islands. The birds in the genus to which the British species belongs may be easily identified by their enormous gape, beset with bristles, very small bill, long-pointed wings, and beautifully vermiculated, or mottled plumage, of a soft texture. The young of the birds in this family, I ought to mention, are hatched covered with down, but are comparatively helpless and stationary for some time. The Common Nightjar is a summer visitor to our islands, arriving in May and departing in September, and may be met with in almost every part of them suited to its requirements. The general ground colour of the plumage is greyish white and buff, vermiculated and pencilled with darker grey and black, barred and spotted, especially on the under surface and crown. The male has a white spot near the end of the inner web of the three first primaries, and the two outer tail feathers on each side have a white tip. The female has no white marks on the wings or tail, and the young also are without them. The wings of the latter are marked with chestnut buff bar-like spots on the inner webs, and spots of the same colour on the outer margin of the outer web; the tail is barred with light and dark brown, and the smaller wing coverts are nearly black, mottled with rusty brown. I have described the plumage of the young in such detail because I do not find that it has been accurately done in ornithological works. The Nightjar's flight, and notes, and food, have already been briefly alluded to. This species breeds in May and June. It makes no nest, but deposits its two eggs on the ground, very often on a common or heath, beneath a bush or amongst ferns, or even on a heap of gravel or stones. The eggs are very beautiful ones, white, or creamy white, mottled, blotched, veined, clouded, and streaked with various shades of brown and ink grey. The bird sits very closely over her conspicuous eggs, deriving her own safety from the fact of her plumage so

closely resembling in general colour the surrounding objects. This bird becomes silent after the nesting season, and is very fond of resting lengthwise on a branch or fence.

On the wide open heaths of the eastern and southern English counties we may be fortunate enough to come across the **Stone Curlew** (*Edicnemus crepitans*). This rather singular bird belongs to the *Charadriiformes* (conf. p. 78), forming one of the small family *Edicnemidae*, which contain some eleven species only. In these birds the short toes are cleft to the base, the hind toe is wanting, and the long metatarsi are reticulated before and behind. The bill is of moderate length, and the gonys very prominent. The family has representatives in most of the warmer parts of the globe, except North America. Nine species are associated with the Stone Curlew in the genus *Edicnemus*. They are characterised by having the bill shorter than the head, and the angle of the



BILL OF STONE CURLEW
(*Edicnemus*).

gonys rises gradually. The tail is rounded, and contains twelve feathers; the white pattern on the webs of the first three primaries is also a special feature. The Stone Curlew is a summer visitor only to the British Islands, reaching them in April, and departing in September. It has the upper parts greyish brown streaked with dark brown, and most of the feathers margined with buff; the underparts are dull white, streaked on the breast and flanks with brown and with two moustachial lines of the same colour. The brown wings are marked with two white bars across the coverts, and the white on the quills and outermost tail feathers is very prominent in flight. The Stone Curlew is a terrestrial species, running and walking with ease, and very Bustard-like in its general habits. It is largely nocturnal, seeking its feeding-places at dusk, and then becoming exceptionally noisy. Its cry is loud and plaintive. It feeds on snails, worms, beetles, frogs, lizards, and mice. Like the Pheasant, it will often squat close to the ground, as flat as it can get, trusting to the protective colour of its plumage for safety. During the love season it indulges in various peculiar antics, dancing or posturing in a very remarkable manner, as its close allies the Bus-

tards frequently do at the same period. It breeds in May and June, probably pairing for life, and returning for years in succession to favourite spots to nest. The two eggs are laid in a hollow on the bare ground, often amongst pebbles and stones, where they are most difficult to see. These eggs are clay colour, spotted and blotched or streaked with brown of various shades (sometimes almost black) and grey. The old bird sits very lightly, running from the eggs at the least alarm, and taking wing at once. The downy young run as soon as they leave the shell. In autumn Stone Curlews become more or less gregarious, and usually migrate in company.

On the heaths, especially where underwood is common and adjoins birch and fir plantations, we may often flush the **Black Grouse** (*Tetrao tetrix*). This handsome species belongs to the Grouse family *Tetraonidae*, the members of which are characterised by having the hind toe raised above the plane of the other toes, which may be either plumed or naked and pectinate. The nostrils are entirely concealed by plumes; spurs are always absent. The Black Grouse is associated with the Capercaillie (already mentioned) in the genus *Tetrao*, the peculiarity being the feathered metatarsi and bare toes. The tail varies considerably in shape (compare that of the Black Grouse and the Capercaillie), and is composed of eighteen feathers; the wings are short and rounded, a space above the eye is naked, and the bill is short and arched from the base. The half-dozen species are confined to Europe and Temperate Asia. The Black Grouse is, of course, a resident with us, but is somewhat locally dispersed in England and Wales, being commoner in Scotland, and is absent altogether from Ireland. The male is glossy blue-black, relieved with a white wing bar, white under tail coverts, and a scarlet wattle; the handsome lyre-shaped tail is also a special feature. The female is mottled brown and buff, is smaller, and her tail is of the ordinary shape. Although met with often enough in woods, the Black Grouse shows a very decided liking for open places, and the Grey Hens (as the females are called) evince a similar preference in their nesting arrangements. If the ground be swampy the bird is all the more at home. It is polygamous, and during the season of courtship returns



PLATE V.—BLACK GAME IN AUTUMN.

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to certain recognised spots where the males indulge in a variety of antics, and secure as many females for their harem as their prowess will allow, fights for possession forming part of the proceedings. The hen bird alone makes the nest and brings up the brood. In May she forms a slight hollow, very often under the shade of dead bracken or a thicket of brambles, heath, and bilberry, lining it with a few fern fronds, pine needles, dead leaves, or dry grass, and here lays from six to ten eggs, buff in ground colour, spotted and blotched over most of the surface with reddish brown. The female is very inconspicuous as she sits upon these, indeed her plumage is wonderfully protective; and the student will not fail to remark that the showy cock bird would inevitably bring disaster were he to mix himself up in family affairs. In autumn Black Grouse frequently visit stubbles. The cocks generally roost in trees, but the hens are much more terrestrial in their tastes.

We have already remarked the **Lapwing** (*Vanellus cristatus*) upon the open fields, and noted a few of its characteristics. As we meet with it again so frequently on the heaths and moorlands, we may as well return briefly to its characteristics and economy. It belongs to the sub-family *Charadriinæ* or Typical Plovers, another section of the *Charadriidæ*, the members of which are distinguished by the combination of a well-marked dertrum to the bill with reticulated metatarsi, and the nasal groove does not extend beyond half the length of the culmen. The Lapwings in the genus *Vanellus* have very broad innermost secondaries, rounded at the tips, and the tail feathers have broad white bases, followed by a black subterminal band. They have a hind toe and a nearly square tail. But two species of Typical Lapwings are known, confined to Europe, Asia, and North Africa. The British Lapwing is one of the best known of our wading birds, and widely distributed over all parts of the United Kingdom suited to its requirements. It is a very showy species, although by no means so conspicuous on open ground as an inexperienced observer might imagine. In summer the general colour above is green, shot with purple and bronze; the crown, throat, and breast are black, the sides of the face and the remainder of the underparts white,

merging into chestnut buff on the tail coverts. A long crest of narrow black feathers adorns the head; the tail is black and white. In winter the throat is white. Lapwings change their ground a good deal with the season, and often desert heaths and open inland places as winter approaches, resorting to marshes and coasts. The flight is very erratic and tumbling, and during the nesting season is accompanied by mewing cries resembling the syllables *weet-a-weet*, *pee-weet-weet*—hence the bird's names of "Lapwing" and "Peewit." When its breeding places are invaded by man it becomes very restless and noisy, tumbling about in the air, swooping to and fro, now close to the ground, anon high overhead, all the time wailing forth its expressive cries. It is an early breeder, laying in April, and very large numbers of eggs are gathered and sent to market, as they are a highly-prized table delicacy and command good prices. Eggs of many other species, however, are also collected and palmed off for those of the Lapwing. The bird makes a scanty nest, sometimes contenting itself with a bare hollow on the ground, and in this it lays four pear-shaped eggs, olive green or pale brown in ground colour, heavily marked with blackish brown and grey. Lapwings are more or less gregarious during the breeding season, and after that period congregate in much larger companies. They feed chiefly on worms, grubs, snails, and insects, and are to some extent nocturnal.

When dealing with the spacious air as a haunt of bird life we had occasion briefly to mention the **Wood Lark** (*Alauda arborea*) and its famous song. We shall again meet with this species on many sandy heaths, especially such as are well sprinkled with shrubs and bushes, and in the vicinity of more heavily timbered ground. It is a resident, and most abundant in the southern English counties, north-eastwards as far as Norfolk. Beyond it becomes rarer and more local, and does not appear to breed regularly in Scotland. It resembles the Sky Lark in general coloration, but has a much shorter tail; the first primary is long and well-developed, and the hind claw is much more curved than in that species. It is very like the Tree Pipit in many of its ways, being fond of perching in trees and launching from them on its repeated song

flights. Otherwise the Wood Lark is a terrestrial species, seeking its food on the ground as well as sleeping there. It pairs early, making a cup-shaped nest in the herbage, or beneath the shelter of brambles and bushes, forming it of dry grass and moss, and lining it with finer grass and horsehair. The four or five eggs are buffish white, spotted and freckled with reddish brown and grey. These are laid in March, those for a second brood in June. After the breeding season Wood Larks become more social, living in parties through the winter until the following spring. I ought also to mention before leaving the heaths that many Wild Ducks breed upon them, and that they are a somewhat favourite resort of the Short-eared Owl; but we shall meet with both species elsewhere, and deal fully with them then (conf. pp. 194, 200).

From the breezy heaths it is often but a very short journey to the furze coverts, and these we may now give a passing call, for they contain several interesting species. Furze coverts, for instance, are everywhere the favourite haunt of the **Stonechat** (*Pratincola rubicola*), found in every part of the British Islands and a species congeneric with the Whinchat, which we met with in the fields (conf. p. 31). This pretty little bird has a black throat, head, and back, a white rump, dark-brown wings and tail, the former relieved with white. The underparts are chestnut shading into white on the sides of the neck and breast. The female is browner and the white parts are not so pure. The Stonechat is by no means shy, if somewhat suspicious and wary, and allows one to scrutinise it as it sits deftly poised on a topmost spray of the gorse, flicking its tail at intervals and uttering a sharp *wee-chic, wee-chic, wee-chic-chic-chic*. Unlike its cousin the Whinchat it is a resident with us, and may be found in gorse coverts at all seasons. It is a restless bird, continually flitting from spray to spray or indulging in more extended flights from one portion of the dense cover to another. It often visits the ground in quest of food, which consists of insects, grubs, worms, and seeds. It breeds in April or May (exceptionally in Devonshire I have known it commence building in March), making a snug cup-shaped little nest of dry grass, moss, and roots, lined with horsehair, feathers, and wool. This nest is very cunningly

hidden amongst the grass and herbage at the foot of a gorse bush, and so wary are the little owners that they seldom betray its whereabouts. The four to six eggs are pale blue, dusted and freckled with reddish brown. Both parents are most assiduous in feeding the young, and continue to do so long after they have left the nest.

Perhaps the most exclusive bird of the gorse coverts is the **Dartford Warbler** (*Sylvia provincialis*). This bird is one of a genus belonging to the *Sylviinæ* (conf. p. 67), and numbering some twenty members. These Typical Warblers differ from other species of the sub-family in having a somewhat short and slender bill, exposed nostrils, and nearly obsolete rictal bristles. The metatarsi are usually short and the feet strong. The bastard primary is exceptionally short, always less than half the length of the second, and the nearly square tail is in most cases shorter than the wing, but in some five species it is longer. These Warblers are confined to the Old World, principally to Europe; a few reach Asia, and many winter in Africa. The Dartford Warbler belongs to the long-tailed section of the genus. It is one of the most local of our indigenous birds, found only in the southern, eastern, and central counties of England. The male is sooty brown on the upper parts, merging into slate grey on the head; the wings are brown margined with buff, the tail dark grey, the outermost feathers having the outside web and the tips white; the under surface is chestnut, merging into white on the abdomen. The female resembles the male in colour, but the underparts are not so rich in tint. The Dartford Warbler is a shy and restless little creature, seldom remaining more than a few fleeting moments in full view at the top of the gorse bushes ere dropping into the dense cover again. It also has a very characteristic habit of fluttering into the air for a few feet above the cover and then settling again. If much disturbed or alarmed it seeks seclusion, and is then flushed with difficulty, creeping amongst the prickly branches more like a mouse than a bird. Its call-note is a loud *pit-it-chou*, but the alarm cry resembles the scolding *chay-chay* of the Whitethroat. During spring and summer the male utters a short, lively and pleasing little song. It appears to breed twice in the year—in April and June.

The nest, which is extremely difficult to find, is usually built amongst the dead lower branches of the gorse, and is a somewhat loosely fabricated and flimsy-looking structure. Externally it is made of dry grass stems, bits of dead gorse and moss, and lined with scraps of wool, finer grass stalks, and occasionally a little horsehair. The four or five eggs so closely resemble those of the White-throat that they cannot be distinguished with certainty, being white or white suffused with green or buff, spotted and freckled with dark brown, paler brown, and grey. The food of this Warbler chiefly consists of insects and larvæ, but some fruit as well. The bird becomes all the more interesting when we bear in mind that it is the only species of Warbler that is resident in our islands.

Another bird very closely associated with the gorse is the **Linnet** (*Linota cannabina*). This species belongs to the same division of the Finches as the Siskin (conf. p. 73), having a slender and sharp bill. The Linnets, with which are associated the Redpoles, are characterised by their short bill and by the carmine tints on the head, breast, and rump. They are confined to the northern portions of Europe, Asia, and America. The Linnet is found in almost every part of the British Islands, and is a resident. The male is chestnut brown streaked with black on the upper parts, except the forehead, which is crimson; the underparts are white suffused with buff, except the breast, which is crimson; the tail is black relieved with white. The female lacks the crimson crown and breast, and the underparts are streaked with brown. Linnets live in flocks during the autumn and winter, but as the spring days come on these break up into pairs, many of which take up their residence in the gorse coverts. All through the winter the birds are musically inclined, and twitter in concert whilst sitting on the tree-tops. Here amongst the gorse the Linnet is by no means shy or difficult of approach; cautious and wary it may be, but it frequently sits and warbles sweetly almost within arm's length. The cock is very fond of showing himself upon the topmost sprays of the gorse, where the sunlight glints upon his rosy breast. The first eggs are laid in April, those for a later brood in June. The nest of the Linnet is an exquisite little cup, snugly placed amongst the green branches of the gorse,

made externally of grass-stalks, moss, dead sprays of gorse, dry leaves, and bits of wool, with a few slender twigs woven into the rim; internally it is lined with hair, wool, vegetable down, and feathers, the whole being very neatly arranged. The four to six eggs are pale bluish-green, spotted and speckled, chiefly round the large end, with deep reddish brown and grey. The food of this species consists of insects and seeds. Its call-note is a musical twitter, heard most frequently during flight. These few species by no means exhaust the avine riches of the gorse coverts. They are, it is true, the most exclusively gorse-haunting species, but many others may be met with amidst its impenetrable foliage. The Cirl Bunting and the Yellow Bunting are often seen amongst the gorse; the Long-tailed Titmouse quite commonly hangs its nest in the branches; Thrushes and Blackbirds skulk under its spreading shade; the Grasshopper Warbler finds seclusion amongst it; the Hedge Accentor frequently resorts to it for nesting purposes. All, however, are more closely associated with other haunts, and will receive attention elsewhere.

As we leave the gorse coverts behind us and make our way across the rough ground, strewn with boulders of millstone grit and clothed with bracken and patches of ling, we shall not fail to remark a change in the bird life. These vast trackless uplands present us with nature in some of her least changed aspects. Here the birds are literally in a state of primeval wildness, passing their lives under similar conditions to-day to those that prevailed thousands of years ago, and long before the faintest glimmer of civilisation dawned over ancient Britain. Here, in these vast solitudes of grey rocks and dancing stream, of heath and ling-clothed waste, of vast expanse of bog and marsh vegetation, quite a number of most interesting birds find a congenial haunt at one season of the year or another. Most, of course, are migratory, coming hither with summer to find a secluded breeding-ground; some there are that pass over these wastes as migrants only; whilst one at least is a resident thereon completely.

The moorland Passerines are few, as we might naturally expect, for such stern and forbidding surroundings do not encourage small birds. One of the most familiar of these is the **Meadow Pipit** (*Anthus pratensis*). Particulars

relating to the sub-family of which it is a member have already been given (conf. p. 26). This Pipit is one of the most widely distributed of British birds, found almost everywhere on upland and lowland, in the wildest as in the most highly cultivated districts. The upper parts are olive green with dusky markings, the tail relieved with white; the underparts nearly white, streaked on the neck, breast, and flanks with brown. The hind claw is nearly straight, and longer than the hind toe. It is by far the commonest small bird of the moors, and we cannot wander far across them without starting it in numbers from the herbage, especially in the wet and marshy areas, or hearing its somewhat plaintive and melancholy note, a *peep-peep*, usually uttered as it rises. In the spring-time, shortly after its arrival on the moors for the summer, the cock may be remarked almost everywhere fluttering into the air for some distance, and warbling an unpretentious little song as he returns to earth. The breeding season, according to locality, is in April, May, or June, and commences shortly after the birds reach the moorlands. The slight nest is made upon the ground, sometimes on a bank, in a tuft of rushes, or amongst coarse herbage surrounded by water. It is formed of moss, coarse dry grass, stalks of plants, and lined with finer grass, fine roots, and horsehair. The four to six eggs are white, very closely clouded and spotted all over with brown, and occasionally streaked with darker brown. As soon as the young can fly gregarious habits begin to prevail, and a general move is made to the lowlands and agricultural areas. The food of this Pipit is chiefly composed of insects, grubs, and worms, many small seeds, and less frequently grain. In much the same localities on the moors we shall also meet with another very interesting little species, the **Twite** (*Linota flavirostris*), a close ally of, and congeneric with, the Linnet. The summer distribution of the Twite is influenced by the presence of moors and heather, and the bird may be said to breed in every moorland district in the British Islands. Its seasonal movements are very similar to those of the Meadow Pipit. The Twite may be easily distinguished from the Linnet by its smaller size, its yellow bill, and the absence of carmine from the forehead and breast, but the rump is rosy red. In

addition to this, the bird is very constantly calling its own name in a long-drawn note resembling the syllables *twa-ite*. The Twite is not exactly a ground bird, although it lives in such bare situations. It may usually be seen, and generally first arrests the attention, sitting on some tall spray of heath or ling, from which it starts as we approach, taking up a fresh perch a little farther on, which it leaves again as we come up, finally returning in a detour to its original resting-place. Here upon the moors the Twite subsists chiefly on insects, but on the lower grounds, to which it retires in autumn for the winter, seeds of various kinds form its principal food. The male utters a twittering song, something like that of the Linnet, what it lacks in musical quality being amply made up in the persistency with which it is continued. The ordinary call-note is the usual Finch-like twitter, heard not only as the bird is at rest, but during flight. The Twite breeds in May and June, usually making its snug little nest amongst the long heather not very far from the ground, and at times even on the ground itself. Outwardly it is formed of twigs, roots, grass stalks, and moss, the lining being composed of finer roots, vegetable down, wool, and feathers. The four to six eggs are pale bluish-green, spotted and speckled, and frequently streaked with reddish brown. The Twite sits closely, and the cock bird often perches close to the nest, warbling and twittering continuously. When the young can fly, they and their parents join other broods and form into flocks, which, as the autumn draws on, retire to lower ground, especially to fields and open weedy pastures. Here they may often be seen in company with Linnets, and are specially fond of consorting with Redpoles.

The last moorland Passerine bird to be noticed here is the **Ring Ouzel** (*Merula torquata*). This bird belongs to the *Turdinæ* section of the *Turdidæ* in which the metatarsi are enclosed in a continuous plate and the nestlings are spotted. The Ouzels are scarcely generically separable from the Thrushes (*Turdus*), but in these birds the throat is not streaked, or in cases where it is so, the male is different in colour from the female. There are about fifty species of Ouzels, which are distributed over the greater part of the world, but are absent from North America.

The Ring Ouzel is practically confined to the moorlands, only visiting lowland areas during migration. It breeds from Cornwall northwards to Scotland, but does not reach the Orkneys, although it visits some of the Hebrides. Instances have been known of it breeding in some of the lowland English counties, but this is most exceptional. The Ring Ouzel bears a somewhat superficial resemblance to the Blackbird, but may always be distinguished from that bird by the broad crescent of white across the chest, and the pale margins to many of the smaller feathers. The female also has this crescentic white chest-patch, but the colour is not so pure, and the plumage generally is browner. The Ring Ouzel is the Stormcock of the moors, pouring forth a torrent of most harsh and abusive chatter when disturbed, accompanied by a boldness and daring of demeanour equalled by few other birds. The Ring Ouzel is specially interesting because it is the only species of Thrush that comes to our shores exclusively as a spring migrant. Parties of these birds—in some cases flocks composed of hundreds of individuals—reach the moors during the first week in April, and may then be specially noticed on the swampy ground on the borders of the heathery wastes, exceptionally wild and wary like the Misselthrush is when gregarious in autumn. These migratory bands soon, however, disperse, and then the males become musical, singing their short, wild, and somewhat monotonous song as they sit upon the low bushes, rough walls, and rock boulders. Eventually all the birds pair and scatter over the moorlands to breed. The noisy Blackbird-like note of *tac-tac-tac, tac tac tac tac* is taken up by each succeeding pair as the wandering observer disturbs them, and he will not fail to remark that the bird elevates the tail upon alighting after each little flight from one part of the moor to another. Early in May nesting operations commence, and the birds show an amount of noisy concern even for their half-finished nest exceeded by no other species. The nesting habits very closely resemble those of the Blackbird. The bulky nest is made in some low bush or thicket on the banks of the tumbling trout-stream or snugly hidden amongst the heather and ling and bilberry wires. The outer nest is made of dry grass with perhaps a few slender twigs interwoven. This is then

lined first with a thick layer of mud, and finally finished off with an ample lining of dry grass. The four or five eggs, bluish green, blotched and spotted with reddish brown, so closely resemble those of the Blackbird that I am unable to give any character to distinguish them. Throughout the nesting period both parents are most noisy and aggressive, resenting the least intrusion upon their privacy, and with a fearlessness most extraordinary. The principal food of this Thrush consists of snails, worms, and insects, but as the mountain fruits ripen these are eaten in abundance, and during the migration south many gardens are visited for similar fare. This species leaves the moors in September, passing south in companies and small flocks, and possibly continues gregarious through the winter.

By the time we have reached the haunt of the Ring Ouzel we are also upon moorland ground suited to the requirements of the **Red Grouse** (*Lagopus scoticus*), another member of the *Tetraonidæ*. The Moor Grouse (*Lagopus*), as this section of the Game Birds is termed, may be at once distinguished by their thickly feathered metatarsi and toes. They have rounded wings, a nearly even tail of sixteen feathers, a short bill, and a naked space above the eye. About half-a-dozen species are known, distributed over the northern portions of America and Asia and Europe. The Red Grouse is specially interesting to the British ornithologist, because it is exclusively confined to the British Islands, found nowhere else, although represented in many Continental localities by the Willow Grouse (*Lagopus albus*). The prevailing colour of the Red Grouse is chestnut brown, barred, freckled, and vermiculated with black; the under surface of the wings is white; there are many greyish feathers on the abdomen; and the legs and feet are pale grey. Above each eye is a scarlet comb. The female has this comb much smaller, and the chestnut in the plumage is replaced by buff. If Grouse are about they very soon proclaim themselves. Either one sees their heads and necks protruding from the short heather, or flushes the birds from the cover with a startling whirr, and they hurry away with a noisy cry of *go-bac, go-bac-bac-bac* with wings beating rapidly or held stiff and arched as they skim down to a safer haunt. Then one may often

see them sitting on the rough walls, or hear the noisy and peculiar cry from all parts of the moors. It is, perhaps, in spring-time that the Red Grouse becomes most interesting to the naturalist—when it is actively engaged in the reproduction of its species. Unlike so many other Game Birds, this Grouse is strictly monogamous. The males, however, are amorous and pugnacious enough, and even commence their love antics in autumn. In the early morning they are in the habit of resorting to small hillocks (“knowes,” north-countrymen call them), and whilst uttering a series of notes (sounding like *ek*, *kek*, or *uk*, many times repeated), flutter upwards for a few feet and then drop again to the ground. This “becking” is a performance to attract the hen birds which are drawn to the place, and answer with a croaking note. As the actual breeding season draws nigh, the love antics of the males become more and more pronounced, until all are paired and nesting duties commence. According to locality, the eggs are laid in April or May, the female forming a slight nest on the ground amongst the heather, and laying from eight to a dozen eggs, white in ground colour, very thickly spotted and blotched over most of the surface with rich brown. Should the season be warm and dry, most of the chicks survive, but cold, wet weather is singularly fatal to them, especially during the first few days of their existence. The male takes no share in incubating the eggs, but joins the female when the brood is hatched and assists in bringing the chicks to maturity. As the autumn comes on, Grouse become more and more gregarious, and at this season often visit the stubbles near their moorland haunts to pick up grain. They are essentially ground birds, running and walking always in preference to flying, and obtaining most of their food on the earth. This chiefly consists of the buds and tender shoots of heath and ling, but in summer insects and grubs are sought, and in autumn large quantities of moorland fruits are eaten. Now and then Grouse may be seen perched in birch, thorn, and rowan trees, and they are specially attracted to such spots by berries and catkins.

The Grouse has not a few enemies to contend with in his moorland home, Gulls, Hooded Crows, stoats, and foxes, but one of the most dreaded is the **Merlin** (*Falco aesalon*). It belongs to the same genus as the Hobby,

previously alluded to on page 85, and for its size is one of the pluckiest and most dashing of the Birds of Prey. Its distribution in the British Islands is almost exactly the same as that of the Red Grouse. It breeds locally only south of Derbyshire, in some parts of Wales, and on Exmoor. The male Merlin is slate blue above, with a rufous nape patch, and shaft lines of black to each feather; the underparts are rufous, with dark brown streaks; the tail has a broad dark band near the tip, and indications of other bands elsewhere. The female is a little larger, and there is much difference of opinion amongst naturalists as to her colour when adult, some asserting that the upper parts are a mixture of rufous and dark brown, but there seems to be little doubt that the sexes are similar in hue at maturity. The Merlin is only found on the moors in summer; in winter many birds retire to the lowlands, while others seem to migrate entirely to more southern countries. It appears upon the moors in April, and yearly resorts to the same localities to breed. Unlike the Kestrel, which hunts and searches for food in the air whilst hovering, or the Sparrow-Hawk, which skims along the hedges and takes its unlucky victim unawares, the Merlin, like a true Falcon, chases its quarry to the death, flying it down with relentless vigour and dash. It will thus attack and strike down such big birds as Plovers and young Grouse. When resting, it usually alights upon a rock or a wall, and has therefore been aptly termed the "Stone Falcon." Its food is chiefly composed of birds, and not even the swift-flying Swallow can escape this Falcon's fatal chase; a few coleopterous insects are captured. The Merlin breeds in May, making its nest on rough ground amongst the heather. This is a slight hollow with, perhaps, a few twigs round the margin. The four or five eggs, white, densely marked with reddish brown, so closely resemble those of the Kestrel that they cannot be distinguished with absolute certainty, just as is the case with those of the Blackbird and the Ring Ouzel. The Merlin is most attached to its nesting place, and will return for years in succession to one particular spot. It is a silent bird, but under excitement utters a tremulous chattering cry, something like that of the Kestrel. I ought to add that

both the Kestrel and the Sparrow-Hawk are frequent visitors to the moorlands, and the Short-eared Owl and the Cuckoo in many cases make their home upon them, but these birds are dealt with elsewhere.

As might naturally be expected the moorlands are the summer home of several species of wading birds, for the conditions and surroundings are here very much the same as on those Arctic tundras or barren grounds to which such vast numbers of these species retire to breed. Three at least are common. One of these is the **Golden Plover** (*Charadrius fulvus*). There are three species of these Typical or Golden Plovers known. They are generally distinguished from other members of the *Charadriinae* (conf. p. 95) by their very long and pointed innermost secondaries, by the absence of a hind toe, by having the upper parts spotted with yellow at all times, and the underparts black during the breeding season only. The genus is almost a cosmopolitan one during winter, chiefly arctic and sub-arctic in summer. The Golden Plover, indigenous to the British Islands, breeds very locally south of Derbyshire. It is a mountain and moorland species during summer, ranging right up to the Shetlands, and in winter retires to the lower grounds and the sea coasts suited to its requirements. There are few prettier birds in bridal plumage, the upper parts being richly spotted with golden yellow, the underparts deep black; the tail is very distinctly barred, and the axillaries are white. In winter plumage the underparts are mostly white. Flocks of Golden Plovers appear upon the moorlands in March or April, and scatter into pairs over suitable ground for the purpose of breeding. Even at this season the gregarious habits are not altogether given up, and throughout the summer the bird is social, numbers of pairs nesting in small areas. Like the Lapwing it is an alert, shy, and watchful species, rising into the air as its haunts are invaded by man, and uttering a singularly mournful, flute-like, whistling note resembling the syllables *klee-wee*. Here and there others may be seen running about the swampy ground or standing on the hassocks of sedge and cotton grass, their black breasts showing very conspicuously against the green vegetation. Their flight is strong and sustained, the

long wings beating deliberately and quickly, but it is not marked by any of those curious swooping, tumbling movements which are so characteristic of the flight of the Lapwing. The alarm soon spreads, and bird after bird may be seen rising here and there from the ground and adding their plaintive notes to the general chorus. These Plovers breed in May, apparently pairing annually for the purpose. The nest is always made on the ground, and usually where it can receive the shelter of a tuft of herbage or of a little bush of bilberry or heather. This nest is simple enough, a slight hollow strewn with a few bits of dry and broken herbage. The four eggs are a trifle larger than those of the Lapwing, buff in ground colour, handsomely blotched and spotted with very dark brown and grey. The markings are largest and most numerous on the widest half of the shell, which, I may add, is quite pear-shaped. The pretty little chicks are most engaging, clothed in beautiful yellow down, spotted and blotched with black. They can run on their long stilt-like legs with amazing speed, and are perfect adepts at hiding away among the vegetation when the warning note is sounded by cock or hen. As soon as these youngsters can fly the old gregarious habits are resumed, and the flocks of Golden Plovers desert the moors as winter approaches, retiring, many of them, to the sea coasts, where we shall have another opportunity of making their acquaintance (conf. p. 219). During summer the food of this Plover is composed of worms, insects, grubs, and the seeds, buds, and shoots of a variety of plants growing on the moors; on the sea-shore, however, it consists of many kinds of small marine creatures.

In much the same localities the **Curlew** (*Numenius arquatus*) also finds a congenial summer haunt. This bird belongs to the sub-family *Totaniinae* or the semi-web-footed group of the *Charadriidae*. The members of it have the middle and outermost toes connected by a web at the base, a smaller web uniting the inner and middle toes. The nasal groove is extended along the greater part of the upper mandible, but the nasal orifice is placed within the basal portion of it. The metatarsi are scutellated before and behind in the majority of species. The Curlews (*Numenius*) are generically distinguished from other members

of the *Totanina* by having the long metatarsi scutellated in front only, reticulated behind. They have a long, slender and arched bill, long and pointed wings, and a nearly square tail. Some ten species of Curlews are known, confined chiefly to northern and temperate Europe, Asia, and North America during summer, but much more widely dispersed during winter. The Curlew and the Whimbrel (conf. p. 218) are the only two indigenous British species, but a third, the Eskimo Whimbrel (*Numenius borealis*), an American species, has visited our area accidentally. During summer the Curlew is practically restricted in the British Islands to the mountain districts, becoming rarer south of Wales, although it breeds regularly as low as Devonshire and Cornwall. Its large size, long-arched bill, mottled brown upper parts (except the rump, which is white), and white underparts streaked and barred with dark brown, are sufficient for identification. The barred and mottled brown and white wings and tail become very conspicuous when expanded during flight. Its movements are very similar to those of the Golden Plover. Like that bird it is a resident with us, but leaves the lowlands in spring to breed upon the moors and uplands. On these it shows a marked preference for swampy ground. It leaves the coast, where it has lived more or less gregarious through the winter, in March or April, and the pairs scatter themselves over their breeding places. Up here, in these vast solitudes, the expressive note of the Curlew is one of the most characteristic bird cries—a loud, clear, far-sounding and melodious *curlee, curl-ee*. The bird itself is one of the wariest, and will never allow a very close approach; and we must be content to watch the long-legged fellows at a distance through our prism binoculars. Then may we see them standing on the grassy hummocks or by the side of the clear rush-fringed pools, preening their plumage or deftly poised with one leg held up and wings half-expanded; or walking to and fro picking here and there, searching for food. Up here during summer this food consists of worms, insects, grubs, and various kinds of mountain and moorland fruit; elsewhere sandworms, crustaceans, and many other marine creatures are sought. The Curlew lays its eggs in April or May. These are always laid on the ground in a slight

hollow scantily lined with bits of broken herbage, and are four in number, of the usual pyriform shape. They are olive or buff, blotched and spotted with olive brown and grey. Although we can scarcely describe the Curlew as gregarious during summer it is by no means an unsociable bird, and many pairs may nest within a comparatively small area. As soon as the young are safely reared the gregarious habits are resumed, and as autumn comes on a general move is made towards the coast and lower ground. We shall meet with the Curlew again in other haunts (conf. p. 216).

Still keeping to the swampy portions of the moors where the heath and ling struggle unsuccessfully with the cotton grass and rushes, we shall not fail to remark the **Snipe** (*Gallinago scolopacina*). This well-known little bird belongs to the sub-family *Scolopacinae*, or the cleft-footed group of the *Charadriidae*. They are distinguished from other members of the family by having all the toes cleft to the base, with no membrane connecting them, as previously pointed out (conf. p. 108). Some twenty-two



BILL OF SNIPE (*Gallinago*).

species of Snipes are included in the genus *Gallinago*, all distinguished by their long bill, which is twice the length of the metatarsus, and the long innermost secondaries equal the primaries in length. The bill is long and straight, softened at the tip, which is rugose and pitted. The dark markings on the head are *longitudinal*, not transverse as in the Woodcocks (conf. p. 79). Another interesting feature is the extreme variability in the number of the tail feathers. The British Snipe, for instance, has fourteen only, but an Asiatic species (*Gallinago stenura*) has no fewer than twenty-six. Snipes are almost cosmopolitan in their distribution. The Common Snipe may be found breeding almost everywhere in our islands in marshy

spots, so that it is by no means confined to the moors, although we have taken this opportunity of dealing with its economy. We have already met with the Snipe in an earlier chapter (conf. p. 15), when we had occasion to describe its singular love-flights; it remains for us now to glance at a few more facts concerning this interesting species. The Snipe is a fairly common resident in our area, but subject to much wandering according to season. The Snipe, like the Curlews, but unlike so many other species in the family, has no distinctive summer plumage. It lives amongst dense vegetation where the colour of its dress is eminently protective, and it does not require to doff its bridal plumage as other Waders do that seek an open haunt on sand and mudflat, where they assume a garb of much more sombre tint. The upper parts are a mixture of brown, black, and buff, the latter distributed chiefly in stripes on the head and scapulars; the underparts are pale buff, almost white, streaked with brown on the neck and breast and barred on the flanks; the axillaries are white, marked with dark grey. The sexual difference in colour is but slight. The love-flights and drumming of the Snipe are continued through April and May, during which period the female goes to nest. The nest is almost invariably made on wet ground and under the shelter of a tuft of grass or rushes. It is a slight hollow lined with a few vegetable fragments, and the four pyriform eggs are buff or olive, boldly blotched and spotted and occasionally streaked with rich dark brown, pale brown and grey. The Snipe is a close sitter, like all birds that derive safety from the harmony between their plumage and surrounding objects, and when flushed from the nest hurries away with little or no outward concern. The food consists of insects and worms, for which the bird probes in the soft soil with its sensitive bill. There are few more skulking and secretive species than the Snipe, and it rarely takes wing unless flushed, hurrying away in an uneven course and pitching again into the first available cover. It is to some extent nocturnal and becomes most active towards dusk.

We have already had occasion to mention the **Dunlin** (*Tringa alpina*) when describing the curious aerial evolutions certain birds indulge in. We may again allude to it

now, for it regularly resorts to certain moorlands to breed. Although generically distinct from the Snipes, it belongs to the same sub-family of cleft-footed Sandpipers. The Typical Sandpipers, comprising the genus *Tringa*, have the culmen longer than the metatarsus, and the eye situated well in front of the auricular orifice. They have rather short metatarsi, a narrow, somewhat compressed



BILLS OF SANDPIPERS (*Tringa*).

and, in some cases, decurved bill, rugose towards the tip. Some eight species and races are recognised, distributed over the northern portions of Europe, Asia, and America during summer, more widely dispersed in winter. We shall meet with many of these birds later on, but the Dunlin is the only member of the genus that breeds within our limits. It may be found nesting very locally in the south-west of England, but becomes commoner from the English Lake district northwards, and is even better known in Scotland. In breeding plumage the predominant tints of the upper parts are chestnut and black, and the underparts are almost uniform black; in winter, however, a great change takes place, the upper surface being grey, the under surface white. A white bar across the wing at all seasons becomes very conspicuous during flight. The flocks of Dunlins disband and return to the upland breeding places in March and April, and gregarious instincts lapse until the following autumn, although social tendencies are apparent, and many pairs often nest within a small area of suitable ground. As already noted, the male in the love season soars and trills, but the ordinary call-note is a long-drawn *teezh*. The nest is a simple affair, a mere hollow scantily lined with scraps of vegetation, concealed in a tuft or amongst the herbage near a moorland pool. The four eggs are buff or green in ground colour, hand-

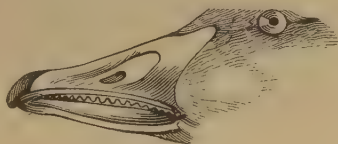
somely marked with reddish brown, darker brown and grey. As soon as the young can fly the moors seem to lose their attraction for the Dunlin, and a general move to lower ground takes place, mudflats and saltings, sands and marshes then being occupied for the winter. Insects, grubs, worms, and fruit are eaten on the moors, but marine animals of various kinds are the bird's chief support on the shore.

On the Highland moors two species of Skua gulls have their habitation during the breeding season, and for the sake of such readers as may be fortunate enough to visit these localities, a few words may be devoted to them. The Skuas, with the Gulls, Terns, and Skimmers, compose the order *Lariformes*, a group showing in many respects important affinities with the Plovers and their allies. They are all web-footed birds, with long pointed wings containing eleven primaries, and a tail variable in shape, but composed of twelve feathers in all cases. The young are hatched covered with down, and are comparatively helpless for some time after they are hatched. The order contains about one hundred species, divisible into several smaller groups, and is practically cosmopolitan. Of the two families the Skuas (*Stercorariidæ*) form one. The principal external characteristic of the Skuas is the cere at the base of the bill, which latter terminates in a very pronounced and strong hook; whilst the claws are very sharp, curved, and powerful. Seven species are known, chiefly distributed in high polar and sub-polar latitudes. The **Great Skua** (*Megalestris catarrhactes*) is one of the rarest and most local of British birds. The birds belonging to this genus (there are four species known) are characterised by their large size, and the central tail feathers extend only slightly beyond the others; the metatarsi are slightly shorter than the middle toe and claw. The genus is represented in both the northern and the southern seas. The Great Skua at the present time is only known to breed in one or two localities in the Shetland Islands. It is of a nearly uniform dark brown colour. This Skua reaches its breeding grounds in April, and may possibly pair for life, as it returns yearly to the same spots for nesting purposes. Although not exactly gregarious during this period, it breeds in scattered

colonies, the breeding pairs occupying a fairly large area of ground. The nest is made on the ground, a mere hollow in the moss, and in this the hen lays two eggs, buff or brown in ground colour, obscurely spotted and speckled with dark brown and greyish brown. When approached by man the Skuas display great boldness in attempting to beat off the intruder, swooping round his head with noisy cries. In their habits generally the Skuas greatly resemble Birds of Prey. They feed largely on fish, which they do not care to catch for themselves, but chase and rob the Gulls and Terns of their finny prey, following them about the air until compelled to drop their captures, which are immediately seized by the pirate Skuas. Not only so, but they will capture and devour small birds, and, when other food is scarce, make a meal on carrion and fish offal; they are merciless devourers of eggs, robbing every nest that they come across. After the breeding season the Skua quits its moorland haunts, and for the remainder of the year passes a more or less nomad existence, often wandering far from land, following the flocks of Gulls. The other indigenous British species is **Richardson's Skua** (*Stercorarius richardsoni*). There are three species of these Small Skuas, their generic distinctions being their elongated central tail feathers, which project from three to nine inches beyond the others, and their metatarsi, which are decidedly shorter than the middle toe and claws. They are arctic and sub-arctic in distribution. Two of them are irregular visitors to the British Seas, but the third, Richardson's Skua, breeds locally on the northern parts of the Scottish mainland, and more commonly in the Hebrides and on the Orkneys and Shetlands. Richardson's Skua is what is called a dimorphic species, that is to say, it presents two very distinct phases of plumage, individually, and quite irrespective of age, sex, or season. The dark form of this Skua is of an almost uniform sooty brown; the light form is slate grey above, white below, the sides of the neck being suffused with yellow. It is a summer visitor to the British moorlands, reaching them late in April or early in May. Its favourite breeding places are the moors near the sea, where the ground is clothed with heath, rank grass, and moss, and studded here and there with marshes and open pools. Like the

preceding species, it is social during summer, and nests in scattered colonies. The nest is a mere hollow in the ground, and the two, rarely three, eggs are olive or buff, spotted and speckled with dark brown and greyish brown. The habits, food, flight, and pugnacious actions at the breeding place are all very similar to those of the Great Skua.

Whilst on these lonesome northern moors brief mention may be made of the **Grey-lag Goose** (*Anser cinereus*). Following the precedent of giving some few particulars of the order, sub-order, family, sub-family and genus when the first species belonging to each is met with, the Grey-lag Goose introduces us to another entirely new order of birds. This is the *Anseriformes*, which is divided into three very natural sub-orders, two of which, however, contain species (the Screamers and the Flamingoes respectively) not coming within the scope of the present work. The third contains the Geese, Swans, and Ducks (*Anseres*), which are distinguished by their laminated bill, short legs, and webbed feet. The sub-order contains but one family, the *Anatidae*, but may be naturally subdivided into some eleven sub-families. There are some two hundred species in the sub-order, which is a cosmopolitan one. The Typical Geese are contained in the sub-family *Anserinae*. They are birds with a short sub-conical bill, with no cere, have feathered lores and reticulated metatarsi. The latter are proportionately longer than those of the Swans, exceeding the middle toe in length, whilst the neck is similarly much shorter. The Grey Geese, of which the Grey-lag Goose is one, are ten in number, and are generically distinguished by having the bill nearly as long as, but never longer than, the head, with a very strongly-defined nail at the tip of it, and with the inner edge of the mandibles crooked and the lamellæ conspicuous. Formerly the Grey-lag Goose bred in the fens and marshes of East Anglia, now it is confined to the moors of North Scotland and some of the Hebrides. It may be distinguished from the other British Geese by its slate-coloured rump and



BILL OF ANSER.

wing coverts, flesh-coloured bill with a white nail, and flesh-coloured legs and feet. The noisy gagging cries of this Goose readily proclaim its presence to the student on these remote moors in early summer. It is a decidedly social bird, and the ganders are pugnacious enough during the pairing season. The eggs are laid in April and May, the big substantial nest being made amongst the tall ling. It stands a foot or more high, and is three feet in diameter, made of branches of heath and ling and pieces of turf, lined with moss, down from the parent's body being added as incubation progresses. The gander keeps watch in the neighbourhood, and is ever ready to beat off any intruding bird or beast. The half-dozen eggs are white. The chief food of this Goose is grass, and in autumn grain. When the young are reared the usual move is made to lower lying districts and the coast. It is of course a resident with us, but great numbers of Grey-lag Geese visit our shores in autumn from other countries. On many of the moorlands the Wild Duck (*Anas boschas*) is a common bird during summer, frequenting the tarns and streams, but this species will be described elsewhere (conf. p. 194). Mention may also be made of the Rough-legged Buzzard (*Archibuteo lagopus*) that passes over them on migration, and of the Redshank (*Totanus calidris*), which frequently breeds in similar localities. I may also add that the Grasshopper Warbler and the Whitethroat may be met with on the moorlands in some localities, and various other species frequent them, but quite sufficient has been said concerning the salient characteristics of their avine life. The Whimbrel (*Numenius phaeopus*) breeds locally too, on some of the Scottish islets, but we shall meet with this bird on the mudflats later on, and will then briefly allude to its nesting habits (conf. p. 218).



HAUNT V

ON THE MOUNTAINS

CONTENTS: The Grey Wagtail—The Dipper—The Common Sandpiper—The Red-throated Diver—The Black-throated Diver—The Red-necked Phalarope—The Greenshank—The Osprey—The Hen Harrier—The Golden Eagle—The White-tailed Eagle—The Snow Bunting—The Dotterel—The Ptarmigan.

OUR rambles over the moorlands in quest of ornithological information are a very suitable introduction to the bird life of the mountains. The moors, comparatively speaking, however, are rich in birds compared with the mountain peaks, and the higher we ascend the more scanty will the avifauna become. If the number of species be small, the mountain birds are exceptionally interesting and rare. As on the moorlands, nearly every mountain species is only a summer migrant to them, and after rearing its young retires either to another country altogether, or seeks the coasts and lower grounds. The simple reason for this is that existence in such wild, shelterless, and foodless localities during winter is quite impossible. Before dealing with the birds themselves it is necessary, therefore, to say a few words concerning locality. Many of the species we are about to meet are not absolutely common anywhere, nor are they very widely dispersed. It would be useless to seek some of them in the mountain districts of England and Wales; others are only found in Scotland. We propose, therefore, to follow the course of the mountain stream on our way upwards to the distant peaks and call in passing at some of the tarns and lakes ere we reach the actual summits that at present are almost hidden in huge caps of cloud and mist.

There are several very interesting birds to the naturalist that have their home on the banks of the mountain streams. One of the most charming of these is the **Grey Wagtail** (*Motacilla sulphurea*). The family and generic distinctions

of the Wagtails have already been briefly noticed (conf. p. 28). This delicately coloured species is found in all, or nearly all, mountain districts throughout the British Islands from Dartmoor northwards. The male is grey above, shading into olive yellow on the rump, yellow below (except the throat, which is black). The female is similar in colour, but lacks the entirely black throat. Grey Wagtails may be seen in many southern and low-lying localities during winter, but in early spring they retire to the mountain streams, reaching them in February or March. Like all its congeners it is a fitful songster, warbling at irregular intervals when fluttering in the air a few feet from the ground. It is also, perhaps, more frequently seen to alight in trees than any other British Wagtail, and runs along the horizontal branches as daintily as on the ground. It keeps closely to the stream, perching on the moss-grown boulders in the centre of the torrent, briskly beating its long tail up and down to balance itself, and when disturbed flitting away in an undulatory course above the water, uttering a shrill *chiz-zit* as it goes, pitching again in quieter haunts, and marking its descent to the ground with the usual motion of the tail. Its food consists chiefly of insects and larvæ, but small seeds are eaten when other fare is scarce. The very rapid way in which it will dart forward, running and flying to secure an insect, is very pretty; there is poetry in its every movement, grace in every action. Like certain other birds that haunt these mountain streams the Grey Wagtail is unsocial, and each pair keep to certain lengths, in which they seem to have vested rights, not only resenting the intrusion of other individuals of the same species, but returning to the old localities with pleasing persistency. The nest is made in April or June, and is never placed very far from the water-side. It is often made under the shelter of an overhanging rock, or amongst the drifted vegetable rubbish brought down the stream by wintry floods, less frequently amongst ivy, or wedged in some low tree-stump, or in a hole in some tumble-down wall. It is loosely fabricated, made of roots, dry grass, and moss, and lined with finer roots, hair, and sometimes feathers. The five or six eggs are greyish white, or very pale buff, indistinctly mottled, and spotted with pale brown, and occasionally with an irregular scratch or two of dark

brown. Like other Wagtails and Pipits, the young and their parents keep in company long after the former can fly. As the winter comes on the mountain streams are left, and more sheltered haunts in the lowlands sought. Of course during this annual passage the Grey Wagtail may be frequently met with near streams and pools, where it is seen at no other time.

Here also on these dancing streams we may be almost certain of meeting with the **Dipper** (*Cinclus aquaticus*). The Dipper is one of a very small and isolated Passeriform family (*Cinclidæ*), thought by some naturalists to be closely related to the Thrushes; by others to the Wrens, although probably but distantly connected with either. They have a straight and rather Thrush-like bill, the upper mandible curved, and with a slight notch at the tip, but no rictal bristles; their metatarsi are not scutellated, but plain and smooth, as in the Thrushes; the feet are large and powerful. Their wings are short and rounded and concave, fitting tightly to the body when folded; the tail is short. Their plumage is exceptionally dense and compact, and they possess an additional protection in a coat of down covering the body below the feathers. The young are spotted. But a dozen species are known, although the family is a very wide ranging one, having representatives in Europe, North Africa, Asia (south to the mountains of Formosa), and the Rocky Mountains and Andes in America. All the species are contained in a single genus. The British Dipper throughout its distribution in our islands is intimately associated with mountain streams, from Cornwall in the south to the Orkneys and Hebrides in the north, as well as in similar localities throughout Ireland. It has the upper parts grey, shading into brown on the head, most of the feathers on the back having pale margins; the throat and breast are white, the rest of the under surface chestnut brown. The Dipper, unlike the Grey Wagtail, is a sedentary species, summer and winter alike keeping closely to its native stream. Its favourite haunts are where the stream is in its wildest mood, where the water boils and tumbles over the rock-strewn bed or flows swiftly down the hills. More likely than not our first introduction to the Dipper is made as we flush the plump little brown and white bird from some water-encircled rock, or from

some patch of bright sand and pebbles on the bank. It rises with a *wit-wit* of alarm, and flying in a direct manner with wings rapidly beating it follows the course of the stream for some distance, and then alights in a similar spot from which it started. If carefully marked down and followed and watched at a discreet distance with the binocular, its actions will be found full of exceptional interest. Probably after a few moments' rest, with a bob of his head and a flick of his stumpy little tail, he will either walk or flutter into the water, and at once disappear beneath the surface. Whilst under water he is busily searching amongst the weeds and moss and turning over the little stones, clinging with his strong toes and incessantly beating his short wings to keep his body at the bottom, until his supply of air is exhausted, and he rises again and swims to the bank. Time after time you may watch him enter the water thus in quest of the insects, small fishes, larvæ, and mollusks, upon which he feeds. On shore he also searches for worms and seeds. The Dipper is not much of a songster, but what he lacks in quality he makes up in quantity, and he warbles more or less frequently throughout the year, save during the moulting period. His song is short, uneven, and low, and may be heard at its best in March and April. Probably the Dipper pairs for life; all through the year each pair of birds confine themselves very closely to particular reaches of the stream, but save in the actual nesting season they do not live in company, and are generally met with singly. Between April and July the student, if he searches sufficiently, will be rewarded by a sight of the big globular nest in which the Dipper rears its young. This nest is never built in trees or bushes, and is always placed close to the water, in some cases so near to it that the spray keeps the outer walls in a constant state of moisture. A favourite site for it is in a crevice of the rocks, under a shelving bank, beneath a bridge, or in a hole in the masonry of sluices, mill-wheels, weirs, and so forth. Occasionally it is seen in a crevice of rocks behind a waterfall, where the old birds have had to face a wetting each time they visited it. It is something like that of the Wren in shape, with a hole for entrance at the front or side, and is made chiefly of green moss, amongst which a few grass

stalks are interwoven, lined with dry grass, roots, twigs, and quantities of dead leaves. The four to six eggs are white. The young take readily to the water, even before they can fly, and when disturbed at the nest seek a refuge in that element, where they seem quite as active as their parents.

The **Common Sandpiper** (*Totanus hypoleucus*) is also found in some numbers on the banks of many of these mountain streams. This species is another member of the *Totaninæ* (conf. p. 108). The genus to which it belongs contains the hard-billed Sandpipers, which are distinguished by having the frontal feathers extending beyond the line of the gape, and the bill nearly straight,



BILL OF SANDPIPER (*Totanus*).

of moderate length, and hard at the tip. In this group the difference between summer and winter plumage is in most cases trifling. The eleven species known are found in summer in various parts of Europe, Asia, and North America, and are more widely distributed in winter. The Common Sandpiper's range in the British Islands is almost the same as that of the Dipper, extending from Cornwall to the Shetlands, and including all suitable places in Ireland. The general colour of the upper parts is a bronzy brown, most of the body feathers having dark shaft streaks, those of the wings and the upper tail coverts barred with dark brown. The white tips to the greater wing coverts, and the white on the bases of the quills, form a distinct wing bar most conspicuous during flight; the three outer tail feathers on each side are barred with brownish black and white. The underparts are chiefly white, washed with brown on the sides of the breast, and streaked with darker brown on the neck and breast. This Sandpiper is a summer visitor only to the British Islands, reaching them in April and May, and retiring south in August, September, and October. Its actions by the water-side are full of interest, and may be watched with ease, because this little creature, although alert and wary, will usually allow itself to be approached sufficiently near for all ordinary purposes. It is almost incessantly in motion, its body vibrating as if full of nervous excite-

ment, and its tail beating quickly up and down as it pauses here and there. It runs daintily along the margin of the stream or trips lightly over the mud, wading in the shallows, and ever and anon picks up a scrap of food. If alarmed it rises with a shrill *weet-weet*, and skims over the water close to the surface, its long wings beating rapidly, or at intervals held stiff and arched. At other times, especially in the pairing season, it may be seen running along the copings of walls or the top bars of a fence, and from these spots the male occasionally rises into the air and utters a short trill. Its food on the mountain streams is chiefly composed of insects and larvæ, worms and certain ground fruits, but on migration, when the bird frequents the coast, crustaceans and other marine creatures are added to the fare. This Sandpiper breeds in May or early June, making a slight nest (a hollow in the ground lined with a few scraps of dead vegetation) under the shelter of a heath or bilberry bush, or amongst tall grass and weeds near the water-side. The four large pyriform eggs range from pale buff to nearly white in ground colour, spotted and blotched with brown and grey. If disturbed from these the hen bird becomes very anxious, and often reels and tumbles about as if wounded and helpless. Should she be pursued, however, her purpose has been gained; she has drawn off the intruder from her treasure, and with an exultant *weet* flies rapidly away. This anxiety becomes even more intensified when her four downy chicks are abroad, pretty little fluffy balls of grey and black down, which are adepts at hiding themselves away in any hole or corner. Ultimately the broods and their parents quit the upland streams and visit the coasts, preferring those of a rocky nature, gradually working south, and at last migrating across the sea to Africa.

On some of the mountain pools and tarns, hemmed in by frowning hills and surrounded by wastes of marsh and heath, the **Red-throated Diver** (*Colymbus septentrionalis*) has its summer home. The Divers introduce us to quite a new order of birds, the *Colymbiformes*, divided into two sub-orders, one containing the Divers, the other the Grebes. These birds are admirably adapted for an absolutely aquatic existence. Their short legs are placed

very far back on the boat-like body, and the scutellated metatarsi are much flattened, so that they offer little resistance to the water between each stroke. The plumage is dense and compact, and the body is clothed with down in addition. The young are hatched covered with down, and able to swim almost directly after they break from the shell. The order is one of the smallest in the entire avine class, and numbers no more than thirty species. The Divers (*Colymbi*) are characterised by their long compressed spear-like bill, feathered lores, and completely webbed feet. Their wings are short and narrow, but pointed, and contain eleven primaries; the tail is very short. The four or five species are all contained in the single family *Colymbidæ*, which again is composed of a single genus. These birds are distributed over the arctic and sub-arctic portions of Europe, Asia, and America, their range in winter becoming slightly more southerly. The Red-throated Diver is a resident in the British Islands, but save during the breeding season it is rarely seen on land, at all other times frequenting the sea by preference. It breeds very locally in Ireland (in Donegal), but is fairly well dispersed during summer over Western Scotland from the Clyde northwards (including the Hebrides) to Orkney and Shetland. The prevailing colour of the upper parts is brownish black, more or less shot with green, all the feathers margined with pale brown and some spotted with white, while those on the nape, the back of the neck, and the sides of the lower neck are margined with white. The head and neck are grey, the crown is marked with small dark spots, and the fore part of the neck is deep orange red. The underparts are white, marked with greyish black on the flanks and vent. The red throat is lost in winter, that and the chin being white; the crown and hind neck are slate grey, mottled with brown and white; and the rest of the upper parts are greyish brown, marked with white. The Red-throated Diver is very rarely seen on land. Even when incubating it slips off its nest at the least alarm and seeks the never very distant water. Its movements on the land are clumsy enough, but in the water it is as active and graceful as a fish, swimming and diving with marvellous skill, or sometimes sinking itself so low in the lake that

little but its bill is visible. This Diver feeds chiefly upon fish, which it dives for and chases in the water with seldom-failing results. It flies well and powerfully with rapid beats of the wings, or sails for some distance holding them outstretched, when about to drop into the water flapping them quickly to break the force of impact. It appears in its summer haunts towards the end of April or early in May, and a few weeks later is engaged in nesting duties. Although often congregating in very large flocks during migration, and living in parties during the winter, the Red-throated Diver is by no means a social bird at its breeding places. Here it lives in scattered pairs, and although several of these may frequent the same lake, each pair keeps pretty closely to its own particular haunt. During the nesting season the love-note of this Diver is a loud, wild, and ear-piercing scream, which becomes exceptionally frequent before rain. The ordinary call-note is an oft-repeated *ak-ak*. Wherever possible the Red-throated Diver selects an island in the lake for a breeding place, doubtless from notions of security. The nest is made at no great distance from the water's edge, and may be placed amongst grass and other herbage, or on the bare shingle in the former situation, a well-worn track being formed to the pool by the bird shuffling along "on all fours." The nest is a hollow, scantily lined with dry grass and other fragments of vegetation. The two long, narrow eggs are olive or buff, spotted and speckled with very dark brown. The young chicks, brownish black above, greyish brown below, soon take to the water, and when fledged go with their parents to the sea. The **Black-throated Diver** (*Colymbus arcticus*) is by far the rarer and more local species of the two, although found in much the same area. It does not, however, breed in Ireland. The forehead, nape, and sides of the neck are light bluish grey, the upper plumage glossy black, shot with green, with two longitudinal bands of transverse white bars on the fore part of the back, and with large square white spots on the scapulars. The upper throat is grey, the lower throat black, shot with purple, the grey being separated from the black by a series of short white lines, and from the hind neck by rows of long white lines, which also extend on to the sides of the lower

neck ; the remainder of the underparts is white, shading into dusky black on the flanks. Its habits closely resemble those of the preceding species. It is just as aquatic, just as clumsy on the land, utters the same unearthly cries in the breeding season, feeds chiefly on fish, becomes to some extent gregarious on migration, but is, perhaps, more solitary than the Red-throated Diver at other times. It breeds in May and June, probably pairing for life, and showing no small attachment to its favourite breeding places. The nest is always made on the ground, and, as



BLACK-THROATED DIVER. ROSS-SHIRE.

a rule, close to the water's edge, on an island by preference. It is a little more elaborate than that of the preceding species—a mass of roots, stalks, and rotten aquatic vegetation lined with grass. In some cases a nest is dispensed with altogether. The two elongated eggs are larger and less profusely spotted than those of the Red-throated Diver, but resemble them in colour. If disturbed, the sitting bird slips very quietly off into the water, but sometimes is joined by its mate, and both fly round in circles. The young in down are very similar to those of the preceding species.

Upon some of the lochs and pools in these remote Highland fastnesses we may be fortunate enough to meet with a very interesting and curious type of Wading Bird, the **Red-necked Phalarope** (*Phalaropus hyperboreus*). Although not exactly a mountain bird, its summer home is in mountainous country, and we may easily pay its haunts a visit on our way to more elevated regions. The Phalaropes, of which but three species are known, belong to the *Charadriidæ* (conf. p. 79), constituting a very small sub-family (*Phalaropinae*) in that assemblage of birds. They are distinguished from all other members of that large family by having the toes furnished with a scalloped web or lateral lobe. The toes are also united by a small web at the base, and the metatarsi are scutellated before and behind. But one genus is recognised here. The Phalaropes have a long, straight, and slender bill, long and pointed wings, the first quill being the longest, and a short and slightly rounded tail. They are found in the northern and temperate parts of Europe, Asia, and North America. The Red-necked Phalarope formerly bred on some parts of the Scottish mainland, but nowadays its only nesting stations are on a few of the Outer Hebrides (North and South Uist, Benbecula) and on the Orkneys and Shetlands. The Red-necked Phalarope has a very slender tapering bill. The female in breeding plumage has the prevailing colour of the upper parts dark slate grey, the feathers of the back and scapulars with pale chestnut margins, the sides and fore part of the neck also being reddish chestnut. The remaining underparts are pure white, shading into grey on the flanks; the brown wings are crossed with a white band. The male is much less bright in colour, and is one of the few interesting instances where the sexual rule of colour is absolutely reversed, and the sexual instincts also; for the female not only takes the initiative in courtship, but leaves the male to incubate the eggs, and he also performs the greater share of tending the brood. In winter all the chestnut disappears from the plumage, and the grey upper parts are streaked with white. The Red-necked Phalarope is a summer migrant only to these northern lakes, reaching them late in April or early in May, and returning south in August. It is a most tame and confiding little creature, spending most of

its summer sojourn with us on the clear moorland pools or in their immediate vicinity. Its actions in the water are very similar to those of the Waterhen—the same grotesque and continual bobbing of the head, the snapping here and there at insects and other floating objects. Unlike that bird, however, it never dives; it is much too buoyant, and floats about on the surface as lightly as a bit of paper. Unlike most others of its kindred, this little Wader continues gregarious through the summer, and breeds in colonies of varying size—a fact which adds considerably to the charm of a visit to its nesting place. It not only swims well, but can fly with great rapidity when necessary, and also walks well and gracefully. Its usual note is a shrill and clear *weet*, heard chiefly during the breeding season. The food of this species consists largely of insects, larvæ, small worms, mollusks, and crustaceans. It begins to nest at the end of May or early in June, making a simple little home amongst the grass in the driest part of the marshy shore—a mere hollow lined with a few bits of dry grass and rush. The four eggs are olive or buff, marked with various shades of brown and grey. Few birds seem more unconcerned when disturbed from their nests; they simply fly to the nearest water and there swim to and fro, apparently quite indifferent to the fate of their eggs. When the young are sufficiently grown the nest pools are deserted for the sea, and the migration south shortly after commences.

Another interesting and rare Wading Bird is a summer visitor to some of these mountain pools. This is the **Greenshank** (*Totanus glottis*), congeneric with the Common Sandpiper (conf. p. 121). The Greenshank is by far the commonest in our islands during the two seasons of passage, and then occurs both inland and along the coast, comparatively few remaining behind in spring to breed or in autumn to winter. It breeds locally in various parts of the Highlands, more sparingly in the Outer Hebrides, and in one or two of the inner islands, including Skye. The male in breeding plumage has the head greyish white, streaked with dark brown; most of the feathers of the upper parts are black with grey margins; the wings are brown; the rump and upper tail coverts are white, the latter barred with brown; the tail is white and grey, more

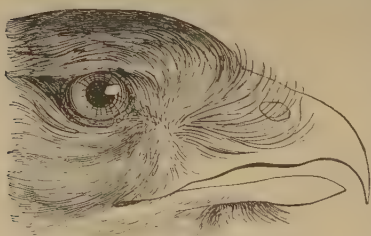
or less barred with brown; the underparts are white, streaked with brown, except on the abdomen. The female has not so much black on the upper parts. The bill of the Greenshank is decidedly upturned, and the legs, as its name suggests, are olive. The summer home of this bird is amidst some of the grandest and wildest mountain scenery in Scotland. What spot, for instance, could be wilder than the Cuchullin Hills in Skye, near Sligihan? Here odd pairs of Greenshanks may be met with on the marshy moorlands on the shores of the mountain lakes and tarns. It reaches these wild spots at the end of April or early May, just as signs of summer are beginning to enliven the dead depressing gloom inseparable from them at other seasons. It soon proclaims its presence, for it noisily resents the intrusion on its lonely home, rises hurriedly into the air, and with a shrill double cry of *tee-yu*, flies about apparently in the greatest alarm. There also, by the side of the deep clear pools, it may be seen running up and down in the manner of its kind busily searching for insects, larvæ, tadpoles, mollusks, and even small fish. If any trees or walls be in its haunts, the Greenshank perches on them at intervals. Its flight is rapid and unsteady, the bird sometimes dropping very suddenly to the ground and running for a short distance with half-open wings, finally closing them with a characteristic and peculiar shake of the body. It runs very quickly, too, and also has a habit of vibrating its body almost continually when standing on the ground. It breeds in May, making its nest amongst heath or herbage at no great distance from the water-side, a tuft or cushion of coarse grass frequently sheltering it. The nest is nothing but a slight hollow strewn with a few bits of dead vegetation. The four pyriform eggs range from nearly white to buff in ground colour, heavily blotched and spotted with dark brown, pinkish brown, and grey. The birds become exceptionally restless when disturbed now, running about over the rough uneven ground, standing at a safe distance on the hummocks, or even trying by various artifices to lure the intruder away. The Greenshank is a lonely species during summer, the pairs scattering themselves far and wide, and evincing no social tendencies. When

the young can fly the coasts are sought, and the migration south takes place in September and October.

Before leaving these lonely mountain waters brief mention may be made of the **Osprey** (*Pandion haliaëtus*). As the student may possibly remember, the Birds of Prey have been divided into four families, two of which have British representatives (conf. p. 84). The Osprey is the sole member of the second of these families. The short bill has a prominent hook; the tibia is long, the metatarsi stout and reticulated, the toes, of nearly equal length, and the outer one reversible, are cleft to the base with no small membrane between them, armed with sharp curved claws, and with the soles coated with rough spicules. The wings are long and pointed, the tail short, and there is no aftershaft to the contour feathers. The Osprey is almost cosmopolitan. In the British Islands it was once of frequent occurrence, but is now numbered amongst the rarest of our indigenous raptorial birds. So far as my own information extends, it only breeds now in the shires of Ross and Inverness. This species has the head and nape yellowish white, striped with brown, some of the feathers on the latter elongated. The rest of the upper parts is dark chocolate brown, shot with purple; the underparts are white, except a pale brown band across the breast. The female is a little larger than the male, and the head and breast are browner. The Osprey is closely attached to these mountain pools and lochs, because it derives almost all its food from them, this being composed of fish both from the sea and fresh water. I ought first to say that this beautiful bird is a summer visitor only to the British Islands, arriving in May and departing in September and October. Many Ospreys are seen in England during this period of migration, but most of them are merely passing our islands, and are not indigenous individuals. Perhaps the most interesting and remarkable part of its habits is the way it obtains its food. The big, long-winged bird hovers at some height above the water until it spies a fish near the surface below, when it drops down with a Gannet-like plunge, seizes the fish in its claws and bears it away to some quiet nook to consume it at leisure. Time after time these actions will be repeated, the bird sometimes plunging unsuccess-

fully, but far more often attaining its object. Its powers of wing are exceptional, even in such a strong-winged order of birds, and it may be watched soaring about the air for a great length of time on wide outspread wings that never seem to grow tired. The alarm note of the Osprey is a shrill harsh scream; its call-note, heard much less frequently, a monotonous *kai-kai-kai*. It seems to pair for life, returning to particular nesting places for time out of mind, so that the old home in the course of years gradually assumes gigantic proportions. Nowadays the Osprey prefers to make its nest on the flat top of a pine tree, but formerly it often selected a ruined building on some island in the mountain lochs. It is decidedly solitary in this country; but in America, where, however, it is much more common, it often breeds in societies like Rooks. The big, bulky nest is made outwardly of sticks mixed with turf, finished off with finer twigs and lined with grass, much of it in a green state. Some nests are quite four feet high, the shallow cavity at the top being about a foot across. The two or three eggs are exceptionally handsomely marked, white or pale buff in ground colour, blotched and spotted with rich reddish brown and violet grey.

Several other Birds of Prey call for notice here. One of them is the **Hen Harrier** (*Circus cyaneus*), a member of the *Accipitrinæ* or long-legged Hawks (conf. p. 89). Some



HEAD OF HARRIER (*Circus*).

twenty species of Harriers are known, generically distinguished by their long, slender legs, scutellated metatarsi, and more or less developed ruff of feathers round the face. They are almost cosmopolitan in distribution. Of the three species indigenous to the British Islands the Hen

Harrier is possibly the commonest, although its numbers have greatly decreased owing to the persecution of gamekeepers, and in not a few places it has been completely exterminated. It is the mountain Harrier *par excellence* found from the hills of Cornwall northwards

through Wales and England, up to the Orkneys and including the Hebrides, as well as the mountainous portions of Ireland. The male has a pale Gull-grey breast and upper parts, black wings, white underparts below the breast, and white upper tail coverts. The female is a little larger and brown, paler on the underparts, which are streaked with reddish brown, whilst the white upper tail coverts are marked with rufous, and the tail barred with buffish brown. I have already had occasion to allude to the peculiar flight of the Harriers (conf. p. 16), and that of the present species is no exception. The male is conspicuous enough on the hillsides, where he may be seen slowly beating along, scanning the ground below in quest of any suitable prey, such as birds, mice, frogs, or insects. He is also a keen and successful egg hunter, despoiling many nests of mountain birds. The Hen Harrier is chiefly a summer visitor to us, arriving in April and May, although a certain number pass the winter in this country. Its favourite nesting places are amongst the long ling and heath on the mountain sides. Here, on the ground, it makes a shallow nest lined with dry grass and garnished with a few twigs, or, on occasion, builds a bulkier structure of similar materials. The four to six eggs are bluish white, exceptionally with a few rusty markings. Such individuals that do not migrate visit the lower-lying districts as autumn advances.

The northern mountains, I am glad to say, are still the romantic and secluded home of the Eagles. Long banished from the English lowlands, these magnificent birds have maintained an existence amongst the inaccessible fastnesses of these Scottish glens and hills until more prosperous times seem at last to have returned, and man's protection bids fair to assist in their increase. Eagles, however, are a long way yet from being in any sense plentiful, and that student may consider himself fortunate who gets a glimpse of them or their nests. There are two species, the rarest being the **Golden Eagle** (*Aquila chrysaetus*). The many species of Eagles compose yet another sub-family (*Aquilinæ*) of the *Falconidæ*. Among their special characteristics are their large size, long and ample wings, and strong toes armed with curved, sharp and powerful claws. In this group the culmen is nearly

straight for about one-third of its entire length, not arched from the base, and the back of the stout and usually short metatarsi is reticulated. Eagles are almost cosmopolitan, having representatives in most parts of the world. The Golden Eagle belongs to that genus which contains what are called the Typical Eagles (*Aquila*). They are, as a rule, birds of larger size (some of the biggest in the entire order), with exceptionally powerful legs, feet, claws, and bill, and the metatarsi are feathered. These Typical Eagles are found in Europe, Asia, Africa, and North America. The Golden Eagle is only known to breed in the Highlands and the Hebrides in Scotland and, locally, in the wildest parts of the north and west of Ireland.



FOOT OF EAGLE, showing position of toes (*under surface*).

The general colour of this fine Eagle is dark brown, the elongated hackle-like feathers on the nape pale buff, and the tail mottled with grey. Young Eagles have the basal half of the tail white. In spite of its large size and ample wing power, the Golden Eagle is by no means an active bird. At times it may be seen soaring in majestic circles above the mountain peaks, keeping the sky for long periods; but more frequently it sits stupidly on the shelves and ledges of the gloomy glens, or flaps lazily about the countryside in quest of weak and helpless creatures that it can capture without much exertion. Its quest of prey is marked by none of that impetuous dash which characterises the hunting of the Sparrow-Hawk, none of those fatal swoops and



PLATE VI.—MOUNTAIN BIRD LIFE. A GOLDEN EAGLE'S EYRIE.

rapid flights that accompany the fatal stoop of the Falcon. Birds, small animals, and even carrion form this Eagle's favourite fare; and it is especially destructive to lambs and deer calves. Its usual note is a barking cry. It is of course a resident in the British Islands, but given to some wandering from its native hills during winter. It is a very early breeder; its young being fledged before the ordinary tourist ventures so far north. Its favourite nesting-place is on a shelf of rock in some secluded glen, from which, however, a good lookout is offered in one direction at least. It pairs for life, and an eyrie will be used for many years in succession, perhaps in turn with another in the vicinity. It is a bulky pile of sticks and branches, lined with dry grass, ferns and masses of moss, and almost invariably with a few green tufts of the great wood rush. The eggs are usually but two in number, dull white or pale bluish green in ground colour, blotched, freckled, and spotted with reddish brown and grey. Very often one of the pair is much less richly marked than the other. Although such imposing birds, the old Eagles show little or no resentment when the nest is visited; our little friends the Ring Ouzel and the Misselthrush being immeasurably more pugnacious in defence of their home.

The **White-tailed Eagle** (*Haliaëtus albicilla*) is more numerous than the preceding species. Although belonging to the same sub-family it is generically distinct from the Golden Eagle. The Sea Eagles are equally powerful and large, but have the metatarsi bare of feathers. The genus is represented not only in North America, but also in most parts of the Old World. The British species has the prevailing colour of the plumage dark brown, except the tail, which is white. Young birds are darker in colour, and the tail does not become absolutely white for several years. This Eagle is very similar in its habits to the Golden Eagle, but is a decidedly maritime species, frequenting the mountains near the sea and the lofty ranges of cliffs that are such a characteristic feature in the scenery of the West Coast of Scotland and Ireland. It is a resident, but given to wandering during winter. It is



BILL OF WHITE-TAILED
EAGLE (*Haliaëtus*).

also much more of a carrion feeder, and hunts about the shore for stranded fish and garbage of all kinds, as well as preying upon weakly animals and birds and capturing living fish. It breeds equally early, in March and April, pairing for life, and using one eyrie season after season. The favourite situation for this is on some magnificent sea-cliff, often in places where the rocks so overhang as to render it absolutely inaccessible. It is a big pile of sticks and branches, masses of turf and seaweed, lined with dry grass, leaves of sea campion and bunches of wool. The two eggs are white. From what I have seen of this Eagle at its nesting place I pronounce it a cowardly bird, flying away when disturbed with little or no trace of resentment. The note is a barking cry.

It remains for us now to climb still higher up these lonely Scottish mountains, as on their wind-swept summits we shall reach the haunts of one or two more very interesting birds, rare and local, it is true, but well worth the fatigue and trouble of reaching them. After all, I hesitate to include two of them, as they are so excessively scarce, but then they are so intimately associated with the mountains that I can scarcely refrain from allowing them a brief notice. One of these is the **Snow Bunting** (*Emberiza nivalis*) (conf. p. 33). The Buntings are found in most parts of the world, except the Australian region, and are specially well represented in America. The Snow Bunting has been found nesting on the mountains in one or two localities in the Highlands, and there can be small doubt that it is much overlooked in the inaccessible localities it frequents during the breeding season. The colour of the upper parts is black, except the wing coverts, the basal portion of the primaries and the outer tail feathers, which are white, as also are the head and the whole of the underparts. The colours of the female are not so pure. After the autumn moult the general colour is much more rufous, caused by the pale margins to the feathers of the upper parts, which are worn away as the pairing time approaches. This bird, of course, is by far the best known as a winter visitor to our islands, reaching them in October in flocks which haunt the littoral districts and the lowlands. The low melodious song of the Snow Bunting is uttered not only as the bird sits at rest on the rocks, but also whilst it

flutters in the air for the sole purpose. The alarm note is a shrill *wit*, the usual call-note a long-drawn *peezh*, resembling that of the Greenfinch. In summer the food of this Bunting consists chiefly of insects and buds of alpine plants; in winter, of seeds and grain. It not only hops, but also runs daintily about the ground in a very Chaffinch-like manner. It breeds in June in Scotland, carefully hiding its nest away in a crevice among loose rocks. It is cup-shaped and made of dry grass, roots, twigs, and moss, and lined with hair and feathers when such are available. The five to seven eggs are buff or grey in ground colour, spotted and streaked with dark brown and violet grey. It should be stated, however, that the eggs are not scrawled and pencilled like those of the familiar Yellow Bunting. When the young can fly the mountain tops are soon deserted.

The **Dotterel** (*Eudromias morinellus*) is almost equally rare, for although it used formerly to breed in some numbers on the chalk hills of the south, and more recently in the Lake district, it is doubtful whether it nests on the Cheviots nowadays. The Dotterel is the solitary member of its genus, and belongs to the *Charadriinæ*, a sub-family of the Plovers (conf. p. 95). Its generic distinctions are the almost completely feathered tibia, and the culmen is less than the length of the middle toe and claw. It has no hind toe, and the wings are long and pointed. The Dotterel breeds sparingly on the Grampians and some other mountains in Scotland, but it appears never to have done so in Ireland. Its summer haunts are far up the hills on the wild plateaux and rough boulder-strewn ground clothed with moss, cranberries, and other sparse mountain vegetation. We have here another instance in which the female is more brightly coloured than the male, the latter taking the greatest share in domestic duties. The female in breeding plumage has the upper part of the head brownish black, two white streaks extending from the bill and meeting on the nape. The general colour of the rest of the upper parts is greyish brown, while many of the wing feathers are margined with reddish buff; the shaft of the first primary is white, and the outermost tail feathers are tipped with white; the throat and sides of the face are white; the lower part of the foreneck has a

double transverse band of black and white, the breast is bright chestnut, and the abdomen black. The Dotterel is a summer migrant, reaching our shores in small flocks in April or early May. There are few such tame and trustful birds, and even on passage, when gregarious, they show little or no fear, and allow an observer to approach them quite closely as they run daintily about the barest ground. Sea-shores and marshes offer no attraction to these birds when migrating; they cross the open country, resting on fallows and bare dry downs, finding suitable haunts at the very summits of the mountains where there is little but bare rocks and stones, partly concealed by moss, and the few alpine plants that flourish in such elevated spots. The food of this species is largely composed of insects and larvæ, small worms, and the tender buds of various plants. Its plaintive call-note sounds something like *düt*, sometimes *dr̄r*, the two being frequently uttered in quick succession, *dr̄r-düt*. Although passing most of its time on the ground it can fly very rapidly, and it also has a habit of running with the wings elevated. It makes a slight nest in June or early July, a mere hollow in the moss or amongst the stones and rocks, with no artificial lining, and in this the hen lays three eggs. They vary from olive to pale buff, heavily blotched and spotted with dark brown and grey. These are very difficult to find, because they harmonise so closely with surrounding objects. If disturbed, the sitting bird slips quietly off them, running anxiously about at some distance, or even trying to divert attention by tumbling along the ground as if wounded or helpless. In the breeding season the male soars and trills, like so many other species in this family. After the young are reared flocks are again formed, and the migration south soon afterwards begins. I ought to add that even in summer the Dotterel is by no means an unsocial bird, and that in its winter quarters it often associates in very large numbers.

The breeding grounds of the Dotterel are also the favourite haunts of the **Ptarmigan** (*Lagopus mutus*), our wildest Game Bird, and the one least dependent upon the protection of man. It is congeneric with the Red Grouse (conf. p. 104), and an extremely local bird. Its chief haunts are on the loftiest summits of the Grampians, but it is also

found on the mountains of Islay, Jura, and Arran, as well as on those of Skye, Harris, and Lewis. Like the sturdy Red Grouse it is practically sedentary, confined to the bleak summits, and only exceptionally visiting lower levels under the stress of continued severe weather. Its favourite haunts are the broken, stony grounds where little else than mosses, lichens, and dwarf fruits flourish. The Ptarmigan is subject to much variation in colour, but may always be distinguished from allied species by the dark-shafted white primaries. In summer the bird is mostly brown, mottled with yellow; in autumn these tints are replaced by pale grey, freckled and pencilled with black, whilst in winter a robe of snowy whiteness is donned, except the tail, which is black, and the male has a black streak through the eye. There can be no doubt that these several plumages are assumed for protective purposes, and the student will not fail to be impressed by their efficiency. The bird is quite aware of its advantage in this respect, and ever seeks to profit by it. You may walk absolutely amongst a flock of Ptarmigan without detecting one, so closely do they crouch to the ground, and so admirably does their plumage, at whatever season, harmonise with it. As bird after bird rises literally from your very feet your astonishment will increase. Up they go, one after the other with a startling whirr, perhaps crossing over the valley with wings beating quickly, or at intervals held stiff and arched as they skim along like rockets. They ever seem averse to take wing, always preferring to skulk or run and squat in the first suitable spot. The Ptarmigan is rather a silent bird, nothing near so noisy and assertive as the Red Grouse, its note being little more than a croaking grunt. The bird does not evince much social tendency during the breeding season. It is monogamous, each male pairing with a single female, and nesting duties commence in favourable seasons in May. The nest is but a hollow, strewn with a few bits of dead herbage, and usually made under the shelter of a rock or a plant. The eight to twelve eggs are pale or dark buff in ground colour, blotched and spotted with rich liver brown. The hen sits on these close enough, and even when not covered by her sheltering plumage they are difficult enough to see, so closely do they resemble their surroundings. In autumn Ptarmigan

begin to pack, and are then found on lower summits, but a few venturesome individuals spend their winter on the highest tops. Our long rough ramble along the banks of the mountain streams and silent tarns is thus fittingly closed with this notice of the wildest bird of all on the highest peaks.



BILL OF BLUE TIT AND BILL OF GODWIT, showing extreme variation in form and adaptation to ways of life and methods of feeding.



HAUNT VI

HEDGEROWS AND HIGHWAYS

CONTENTS: The Hedge Accentor—The Song Thrush—The Blackbird—Warblers—The Whitethroat—The Lesser Whitethroat—The Orphean Warbler—The Blackcap—The Willow Warbler—The Grasshopper Warbler—The Wren—The Long-tailed Titmouse—The Marsh Titmouse—The Lesser Redpole—The Chaffinch—The Greenfinch—The Bullfinch—The Yellow Bunting—The Cirl Bunting—The Red-backed Shrike—The Cuckoo.

THE bird life of the hedgerows and the highways not only presents considerable variety but is also tolerably abundant. These spots not only afford that all essential cover which the small Passerine birds delight in, but also furnish a considerable amount of food, in the form of fruits and berries and a great variety of seeds. There are, indeed, few hedgerows that one can wander alongside far without seeing birds of some kind or finding their nests in the proper season. Hedgerows are one of the special features of an English landscape, and the more uncared for and untrimmed they are the more attractive they become to birds. It is, however, in summer only that they abound most in bird life; in winter, when the foliage is all gone, they afford far less cover, and in many places then become practically deserted.

In almost every hedgerow in the land we are pretty sure of meeting with the **Hedge Accentor** (*Accentor modularis*). There can be small doubt that the Accentors (*Accentoridæ*) are closely related to such Thrush-like forms as the Chats and Robins, although they present sufficiently important differences to warrant their separation as a distinct family. They have a straight and slightly conical bill, beset with few rictal bristles, scutellated metatarsi of moderate length, and a moderately long and square tail. Typically, the wings are short and rounded, the secondaries being almost equal in length to the primaries, but in the Mountain Accentors they are longer and more

pointed, due possibly to the more migratory habits of these birds. The sexes do not present much difference in colour, and the nestling is spotted. About a dozen species of Accentors are known, which are distributed over Europe and Asia. The familiar Hedge Accentor, Hedge Sparrow, or Dunnock, as it is otherwise called, is found in almost every part of the British Islands, being only absent from some of the wildest Hebrides and the Orkneys and Shetlands. It has the head slate grey, streaked with brown, the rest of the upper parts reddish brown, streaked with dark brown, except the upper tail coverts, which are tinged with olive; the throat and breast are grey; the lower breast and abdomen are white, tinged with buff; the flanks are pale brown, streaked with darker brown. The female closely resembles the male in colour, but is more heavily marked on the head and flanks. I cannot call him a shy bird, although he is very fond of seclusion, and his restless ways and love for hopping about dense cover give an impression of secretiveness which is not actually real. Very often you may see him drop out of the hedge on to the highway, and hop and shuffle about in a very restless manner, incessantly flicking his wings, and giving his tail a shake as he picks up the tiny seeds and insects. It is impossible to mistake him for any other species, and his rather sad little cry of *peep-peep* will also aid you to identify him. He specially endears himself to the lover of birds by his perennial song, which may be heard summer and winter alike, and is exceptionally welcome in the dreariest months, when most other bird songs are hushed. This song is not particularly sweet or prolonged, and always seems tinged with a sort of sadness. I can only compare it to that of the Wren—an up-and-down melody, but without the concluding trill of that species. The nest of the Hedge Accentor is one of the first that we find in spring. The year has scarcely turned, the hawthorn buds are still unbroken when it is commenced. And what a very pretty and artistic little nest it is! Right in the centre of the hedge it is snugly placed, made externally of moss, dead grass, and leaves, bound together with fine pliant twigs, and warmly lined with wool, hair, and feathers. The four to six eggs are a clear, dark turquoise blue. The bird is a close sitter, remaining on the eggs until the

branches are shaken or disturbed before quitting the nest to slink away. Several broods are reared during the spring and summer, and in some of these later nests the Cuckoo very often drops an egg.

The **Song Thrush** (*Turdus musicus*) is almost as closely associated with the hedgerows as the Accentor, especially during the breeding season and when the various berries are ripe. Its generic distinctions have already been described (conf. p. 71); and we have met with the bird itself in our stroll across the fields. The Song Thrush is found in all parts of the British Islands that are sufficiently wooded to afford it cover, even reaching as far north as the Orkneys. The general colour of the upper parts is olive brown, the wing coverts tipped with buff; the underparts are nearly white, shading into fulvous on the flanks and breast; the sides of the face and most of the underparts are spotted with black. The sexes are similar in colour, but the nestling is profusely spotted on the upper parts with buff. The hedgerows are a favourite feeding-place of this Thrush, for in them it finds quantities of snails (*Helix* principally) on which it greedily feeds. These snails are carried in the bill to the nearest stone, hard ground, or tree-root, where the shells are broken by being repeatedly knocked against such objects, and the poor snail devoured piece by piece. The Song Thrush is one of our finest indigenous songsters, and in sheltered districts sings almost all the winter through. His song is readily recognised by the constant repetition of almost every note, and is second to none in its pleasing variety. Early and late the spotted songster may be heard, his voice being particularly charming in April and May. He ceases to sing in July when the annual moult takes place. This Thrush is one of the least gregarious of its kind; and in many parts of the country it is a regular migrant, leaving in November and returning at the end of January, and I may add, that at this season the hedgerows are practically deserted by this species in not a few localities. The Song Thrush may be found breeding from February onwards to August, and a very large percentage of its nests are made in the hedgerows. The earliest nests are usually placed in holly bushes in these places, but as the deciduous shrubs become clothed in spring verdure, these are as

frequently selected. A site is chosen well in the hedge, as likely as not close to the bottom. The nest is well made of dry grass, fine twigs, scraps of moss, and dead leaves, then lined first with mud, and secondly with wet rotten wood. The four or five eggs are turquoise blue, spotted with blackish brown and grey. The old birds often become very noisy, uttering rasping angry cries if disturbed at the nest, more especially should it contain young. The food of this species consists chiefly of worms, grubs, snails, and fruit; but it is not nearly so much a berry feeder as the Misselthrush.

The **Blackbird** (*Merula vulgaris*) is also a common bird of the hedgerows. It is congeneric with the Ring Ouzel, and its peculiarities in this respect have already been given (conf. p. 102). The Blackbird is found in most parts of the British Islands, and is a species that has extended its range considerably within recent times. The male is glossy black, with an orange yellow bill and orbits; the female is brown, with an olive cast above and tinged with rufous on the throat and breast, which are marked with dusky streaks. This easily-recognised species is specially fond of hedgerows with a more or less dry ditch below them—sunk fences we call them in Yorkshire. It is shy and retiring, darting out from the hedge with a long string of startling cries, and flying quickly just above the ground for some distance again enters the cover. It may constantly be heard poking about the drifts of dead leaves at the bottom of the hedges, turning them over in quest of food, hopping along at a rapid pace as we approach, only taking wing as a last resource. There are few finer songsters in our country, its rich flute-like voice only being spoiled by the shortness of its duration. The Blackbird commences to sing toward the end of February and keeps in voice until July, although there is a perceptible falling off in June. This Ouzel pairs in March, and is most pugnacious throughout the period. It may be found breeding from that month onwards to August, several broods being reared in a season. A hedgerow is always a favourite spot for the cup-shaped nest, and when in such situations it is, as a rule, built close to the ground or wedged in the very centre of some dense bush. It is made of dry grass, twigs, moss, and

dead leaves, lined first with a thick coating of mud, and finally finished with a second lining of fine dry grass. The four to six eggs are blue, blotched, spotted, and freckled with reddish brown and grey. Both sexes incubate, but the birds are never so noisy at the nest as the Song Thrush or the Ring Ouzel, which is rather a remarkable fact. The Blackbird becomes exceptionally noisy towards dusk, *pink-pinking* with a most irritating persistency. It is more of a berry and fruit feeder than the Song Thrush, and leaves the hedges to plunder the gardens near them of peas, cherries, and other tempting produce. To some extent this Ouzel is migratory, its numbers perceptibly decreasing in many northern localities in November, the return movement taking place in February. I may add that this bird occasionally runs as well as hops, and that it sings as it flies, if rarely.

Here in the hedgerows we shall also meet with several Warblers (*Sylviniæ*) (conf. p. 67) belonging to the genus *Sylvia*, the characters and distribution of which have already been given (conf. p. 98). The commonest of the trio is the **Whitethroat** (*Sylvia cinerea*), the most widely distributed of the British Warblers, and found everywhere in suitable localities as far north as Ross-shire. The male has the head grey, and the rest of the upper parts greyish brown; the wing coverts and innermost secondaries are broadly margined with chestnut, the outermost tail feathers with broad white margins; the underparts are white, with a delicate vinous shade on the breast and a buff tinge on the flanks. The female has a brown head and no vinous tint on the breast. The Whitethroat is a summer visitor only to us, and reaches our islands at the end of April or beginning of May. Its favourite haunts are where the hedges are thickest and most tangled. A few days after arrival the cock Whitethroat may be heard in song—a sweet garrulous little melody uttered in fitful snatches during these early days, but soon acquiring its rich, wild, and varied beauty under the influence of dawning sexual passion. Not only does he sing when poised on some swaying topmost twig, his little silvery throat vibrating and bill wide open, but also as he indulges in short, fluttering flights along the top of the hedge, or when crossing the highway from one row to the other.

His music ceases towards the end of July. The food of this Warbler is composed chiefly of insects and larvae, but garden fruits are eagerly sought, and even grain in an unripe, soft, milky state. The way a Whitethroat will annex raspberries is a revelation. The Whitethroat breeds in May and June, making an open, flimsy, netlike nest of dry grass stalks lined with horsehair, and decorated to a varying extent with cocoons and cobwebs. Although we can see the eggs through the structure it is beautifully rounded and deep, and much stronger than it seems. Its habit of using dry grass stems has gained for it the local name of "Hay Bird"; whilst in Yorkshire schoolboys used to call it a "Peggy." The four to six eggs are buffish white or green in ground colour, mottled and freckled with various shades of brown and grey. I ought to add that the nest is frequently made in the thickest parts of the hedge, and almost as often in the tall nettles, masses of meadow-sweet, brambles, and briars that grow so luxuriantly by the hedgerow side. The brood seems to be abandoned at maturity, and the Whitethroat is then met with mostly alone. The call-notes of the Whitethroat are a harsh and scolding *chzh*, a shrill *tay-tay*, and an oft-repeated *weet*. The bird moults in July and August, then becoming exceptionally shy and retiring, and leaves its summer haunts for the south by the middle of September. The **Lesser Whitethroat** (*Sylvia curruca*) is much more local, and is unknown in Ireland, rare in the west of England and in Wales and north of Yorkshire, only extending into Scotland as far as the Forth Valley. It is a slightly smaller bird than the preceding, from which it may be distinguished by its pale slate grey upper parts tinged only with brown on the back; the legs and feet are lead colour, instead of pale brown as in the Common Whitethroat. It arrives about the same time in spring, and leaves again in late September. It loves to haunt the lanes and highways where the hedges are exceptionally tall and well grown and contain plenty of saplings and mature trees, amongst the highest branches of which it may often be detected. This peculiarity of habit, on the other hand, often causes the bird to be overlooked, but its harsh note of *tec-tec* should serve to bring it into notice. Its ways are just as restless, and it loves

seclusion equally as much as its congener. You may watch it (only, however, getting an uninterrupted view at intervals) hopping about the twigs, picking insects from the leaves, and ever and anon fluttering, poised for a moment peering beneath the foliage. Sometimes a sudden impulse will send the male fluttering out into the open to warble the few twittering and monotonous notes that represent his song, and then, as if alarmed at his own temerity, he drops hastily again into the leaves. Its food resembles that of the preceding species. It breeds a little later—in May and June, frequently making its nest in the topmost branches of a tree or the highest hedges. This nest is flimsy and net-like, but much shallower than that of the Common Whitethroat. The four or five eggs are white or very pale buff, spotted and freckled with greenish brown and grey. Here also, in these shady lanes where the hedgerows are almost concealed by a wealth of briar and bramble and woodbine, the melodious **Blackcap** (*Sylvia atricapilla*) has its summer haunt, made all the more attractive should a trout stream flow beside them. This Warbler may be readily recognised by the ash-brown upper parts, black crown, grey chin and throat, and nearly white abdomen; the female has a pale chestnut crown. The tail of both sexes is uniform brown. The Orphean Warbler (*Sylvia orphea*), a rare wanderer to us, is very similar to the Blackcap, but has white patches on the outermost pair of tail feathers. The Blackcap is found throughout England and Wales, if locally, but becomes much rarer in Scotland and Ireland. It arrives in April, and very shortly afterwards the males are in full song. The music of this Warbler is not excelled by any other British songster—its variety, compass, brilliancy, and clearness of tone being unrivalled. The bird is also a persistent singer, and the song is of considerable duration, modulated in a variety of ways. The Blackcap, like most of its kind, loves seclusion, is fond of hopping about the trees and threading its way through the dense network of hedgerow branches, a trembling twig here and there and a scolding *tec-tec* marking its progress in the cover, from which it seldom strays far or for long. Its food is similar to that of its congeners, but the bird is specially fond of berries and fruits. In May or June it slings its pretty

cup-shaped nest from the slender branches of the hedges, or attaches it to the briars and brambles nearer the ground. It is made of dry grass stalks, roots, scraps of moss, garnished with cobwebs and cocoons, and lined sparingly with horsehair. The four to six eggs are whitish in ground, spotted, blotched, and freckled, clouded and suffused, with brown of various shades and grey. A rare type is pale brick red, marbled and clouded with darker red, and spotted and streaked with dark purplish brown. The Blackcap migrates south in September.

Two other Warblers are common frequenters of the hedgerows. The best known of these is the **Willow Warbler** (*Phylloscopus trochilus*). A description of this little species has already been given, and some allusion made to its habits (conf. p. 68). Here we will content ourselves with a peep at its cosy, pretty little nest, a good idea of which has been conveyed by Mr. Whympers' charming drawing. A favourite site for this is on some hedgerow bank snugly concealed amongst the bluebells, bracken, fern and bramble. Here, in such a spot, the nest of the Willow Warbler may be found in April, May, or June. This nest is semi-domed, rather more open than that of the Chiffchaff, and somewhat loosely put together. The outer materials consist of dry grass, moss, dead leaves, and roots, the lining is composed of hair and feathers. I once counted no less than two hundred feathers in the lining of a nest of the Willow Warbler. The eggs, from four to eight in number, are white, spotted and freckled with reddish brown. The old birds are most cunning and careful in visiting their nest, but, provided a little patience be exercised, they may be made to betray its whereabouts. The very plaintive note of this species when the nest is disturbed will not fail to be remarked. Our second species is the **Grasshopper Warbler** (*Locustella naevia*). The Grasshopper Warblers (*Locustella*) are closely related to the Reed Warblers, but they have a more rounded tail (composed of twelve feathers), the outer feathers less than three-fourths the length of the central ones, and the rectal bristles are obsolete. They have a long, slender bill, and in many species the upper parts are spotted. About eight species are known, distributed over Europe and Asia, several visiting North Africa in winter. The Grasshopper



PLATE VII.—WILLOW WARBLERS AND NEST.

Face p. 146.

Warbler is generally distributed over England and Wales and Ireland, but becomes much rarer and more local in Scotland. The general colour of the upper parts is olive brown, spotted with darker brown; the underparts are mostly buffish brown shading into white on the chin and abdomen; the under tail coverts have dark centres. Hedgerows, it must be explained, are by no means the exclusive haunts of this Warbler; the bird also delights in the tangled undergrowth of open plantations and in thickets of all kinds. Those hedges where the bottom growth is dense, and below which are ditches choked with tangled vegetation of many kinds, are favourite resorts. The most striking characteristic of this excessively skulking bird is its *song*, which may aptly be compared with the chirping of the grasshopper, only much more continuous and prolonged. Once heard it can never be forgotten nor mistaken for the music of any other bird. This song is one continuous, rapid, monotonous trill, varying from, perhaps, half a minute to several minutes in duration, and it is uttered not only when the little creature is at rest, but also when creeping about the undergrowth more like a mouse than a bird. It may also be heard at all hours of the day, and very frequently during darkness. The voice of this Warbler is the safest indication of its arrival, and is usually first heard towards the end of April or early in May. On the rare occasions that the bird is flushed it flies off in a somewhat feeble manner, giving one the impression that its sole desire is to hide itself again as quickly as possible. So skulking is this species that we may chase it to and fro along the hedge bottoms guided by the sound of its sibilant voice for an hour or more without once getting a glimpse of it. It feeds on insects, larvæ, and fruit. Its breeding season is in May and June, the birds frequenting hedges, placing their nests amongst the long grass and tangled vegetation, and several may be found in a small area. The nest is cup-shaped, compact, and deep, made of moss, dry grass, and dead leaves, and lined with fine round grass stalks. The four to six eggs are pinkish white, spotted and sprinkled with reddish brown and grey, most numerous on the larger end. When flushed from the nest the sitting bird skulks off, creeping through the grass and other vegetation, so that

its home is found with difficulty. It leaves our shores in August and September.

Returning to commoner species our next hedgerow bird is the **Wren** (*Troglodytes parvulus*). About one hundred species of Wrens are known contained in the *Passeriforme* family *Troglodytidae*. They are birds of small size with a somewhat arched and slender bill, exposed nostrils, and few or no rictal bristles; with long and stout metatarsi, generally scutellated in front, but in some forms plain, strong feet and a large hind claw. They have short, rounded, and concave wings, and a tail of twelve feathers, somewhat variable in shape and relative length. The Wrens are mostly dressed in brown and chestnut plumage, frequently barred with a darker shade. Wrens are most abundant in South America, but are fairly well represented in North America, in Europe, Asia, and Africa north of the desert. The Common Wren is one of our best-known resident birds, found almost in every part of our islands, except St. Kilda, where its place is taken by *Troglodytes hirtensis*, a larger and more robust bird, more heavily barred on the upper parts. The general colour of the upper parts of the ordinary Wren is chestnut brown, barred from below the neck with dark brown; a few small white spots on the wing coverts form a double bar, and there is a pale buffish stripe over the eye. The underparts are greyish brown, suffused with rufous on the flanks and abdomen. There is little difference in colour between the sexes. This usually solitary little bird is one of the most restless denizens of the hedges, although by no means exclusively confined to them. Noisy and secretive, it threads its way through the most tangled vegetation, keeping well in advance of our approaching steps, until at last it probably breaks cover, and in a feeble flight with rapid beating wings swirls along before us more like a brown leaf caught by the wind, until it disappears once more into the foliage. Its harsh, grating note, uttered in a string of repeated vociferation the more heartily the more the little creature is disturbed, is one of the most familiar bird sounds of the hedgerows; whilst its glad, blithesome, clear, and loud song, jerky yet full of pleasing variety, and stopping as suddenly as it commences, may be heard throughout the year, save during the moulting season.

The Wren pokes about everywhere; there is not a nook or a cranny, a drift of dead leaves or a tangle of thicket that it does not explore in its restless search for food. It is rarely still for a moment, mouse-like creeping about the underwood with stump of a tail cocked straight up, and body incessantly shaking and bobbing. It does not often visit the ground, and I can only recall a solitary instance of seeing it hop thereon for any distance. It feeds chiefly on insects and larvæ, but seeds and fruits are also eaten. Few birds make a prettier or cosier nest. It is placed (amongst a great variety of other sites) in some crevice of an ivy-covered stump, under an overhanging bank below the hedges, or in a tangle of bramble and brake, is globular in form with a small hole for egress. A great variety of materials are employed, but the most usual are moss, dead fern leaves and dry grass, stalks of the latter being woven round the entrance; and the lining consists of moss, hair, and feathers. The parents are suspicious little birds, and forsake their half-finished home at the least provocation. It is finished in about a fortnight, and then the half-dozen tiny eggs are deposited, white in ground colour, somewhat sparingly marked with reddish brown and grey. The brood and their parents keep company for some time after the nest is deserted, and the youngsters are still fed diligently by the old birds as they troop along the hedgerows. They are very fond of roosting in haystacks.

In many a hedgerow we may also meet with the **Long-tailed Titmouse** (*Acredula rosea*). I have already mentioned the family characteristics of the *Paridæ*, to which this species belongs (conf. p. 64). In this family the Long-tailed Titmice form a very distinct little genus, differing from the more Typical Tits in having a proportionately much longer and a graduated tail, which is in every instance considerably longer than the wing. Their plumage is also of a much more fluffy texture. They are confined to Europe and Asia. The British Long-tailed Tit differs slightly from the species found on the Continent, the latter having an entirely white head. It is generally, if somewhat locally, distributed over England and Wales, becoming rarer in Scotland and Ireland. The head is black with a white crown, the upper parts are black, marked with pink on the rump and scapulars, and with

white on the innermost secondaries; the tail is black and white; the underparts are more or less rose red. The female is similar to the male in colour. The habits are very similar to those of other Titmice already mentioned. Summer and winter alike the bird may be met with in the hedges, the tallest by preference. After the breeding



LONG-TAILED TITMOUSE AND
BILL OF ACREDULA.

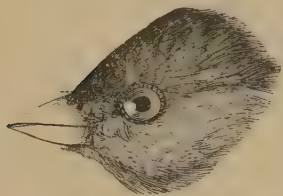
season they roam about in small parties (chiefly the brood and their parents), trooping along the hedge sides one after the other in undulatory flight, and searching the twigs for insect food in a most engaging manner. In March, in the extreme south, in April or May further north, the exquisitely beautiful nest of this Titmouse may be met with in the hedgerows as well as elsewhere. It is often placed in a holly bush in a gorse thicket by the wayside, or amongst brambles and briars draping the hedges. It is globular, with a small entrance hole near the top. The outer materials are chiefly moss and lichens, the latter being attached by spider's webs, cocoons, and bits of wool; the lining is an abundance of feathers. All the outer materials are felted together in a most compact manner, and about a fortnight is required to complete it. The little architects are most industrious when at work, and by no means shy. I have often watched them build this wonderful little nest within a few paces, and with a prism binocular; the whole operation, so far as it can be seen from the outside, may be followed day by day. The six to ten tiny eggs are white, minutely spotted with pale red and grey. The ordinary note of this Titmouse is a rapidly repeated *pe-pe-pe*, or *zi*. Where the hedges contain plenty of hollow stumps we may also meet with the **Marsh Titmouse** (*Parus palustris*), congeneric with other species already mentioned (conf. p. 64). It is locally distributed over England and Wales, more so even in Scotland, where it does not penetrate beyond the Forth Valley, whilst in Ireland its area of dispersal is still incompletely defined. It somewhat closely resembles the Coal Tit (conf. p. 64), but may readily be distinguished by its black nape. The head and nape are black, the sides of the head white, the

rest of the upper surface buffish brown, except the wings and tail, which are dark brown, the feathers of the former with pale margins. The chin and throat are black, slightly mixed with white, the remainder of the under surface greyish white suffused with buff on the flanks and abdomen. The female closely resembles the male in colour. Hedges near water are a favourite resort of this species, which closely resembles other Titmice in its habits and economy. It may be readily identified by its note, an oft-repeated *tay-tay-tay*; its other notes closely resemble those of allied species. The Marsh Titmouse probably pairs for life, and resorts yearly to one particular spot to breed. A hole in some rotten stump or paling in the hedge is a favourite site, and in some cases where the wood is soft the birds excavate one for themselves, or alter and enlarge a small crevice. Here, at varying depths of a few inches, or as many as eighteen inches, the birds form a rude cup-shaped nest of moss, wool, dry grass, feathers, fur, and hair, all more or less closely felted together, the hen laying from six to ten eggs in April for the first brood, in June for a second. They are white, spotted and freckled with brownish red. It is not so gregarious as the other Titmice, although social enough, frequently fraternising with other species.

There are several species of Finches (*Fringillidæ*) (conf. p. 72) intimately associated with the hedgerows and highways. Beginning with the rarest I may mention the **Lesser Redpole** (*Linota rufescens*). Congeneric with the Linnet (conf. p. 99) this tiny Finch breeds but locally in the southern counties, becoming commoner from Yorkshire northwards into Scotland, whilst in Ireland it is best known in the northern parts of the country. The adult male is rufous brown streaked with dark brown above, the forehead and rump crimson, while some of the wing coverts and the inner secondaries are marked with pale buff; the underparts are buffish, flushed with crimson on the breast and washed with rufous on the flanks, which are streaked with dark brown; the chin and upper throat are blackish brown. The hen has no rose colour on the breast or rump, and is more streaked on the breast and rump. Much of the crimson tints are concealed by pale margins or fringes after the autumn moult, these gradually

abrading away as the breeding time approaches. Redpoles are resident with us, living in flocks during winter, which disband and scatter over the countryside in pairs as spring passes on. In Yorkshire and Derbyshire especially this Redpole is commonly found nesting in the hedgerows. In May or June it makes a very neat and pretty little nest, placing it in some crotch in the hedge or even far up the branches of a tree standing in such places, an elm by preference. It is cup-shaped, made outwardly of roots, moss, and dry grass interwoven with a few slender twigs and warmly lined with vegetable down, hair, and feathers. The five or six eggs are greenish blue, spotted and speckled with purplish brown and sometimes slightly pencilled with darker brown. We have already met with the Redpole on the open fields, and it remains now but to add that the cock during the breeding season utters a short and pleasing little song; that both parents become very noisy and anxious when their nest is threatened, flitting to and fro with twittering cries; and, lastly, that in winter they are most tame and confiding little creatures, seeking for food almost at one's feet, or throwing themselves into a variety of grotesque Tit-like attitudes as they explore the catkins and twigs. Their food in summer is largely of an insect character.

Upon the highways we may very often come across that gay little bird the **Chaffinch** (*Fringilla cælebs*), a member of the sub-family *Fringillinae* (conf. p. 73). This bird belongs to the typical genus *Fringilla*, in which the bill is comparatively slender and pointed. Some eight species are known, most of them closely resembling the Chaffinch in general appearance, the most aberrant forms being the Brambling and the Chaffinch (*Fringilla teydea*) inhabiting Teneriffe, the latter being grey with black wings and tail. The genus is represented



HEAD OF CHAFFINCH (Male)
(*Fringilla*).

in Europe, Asia, and North Africa, but is most abundant in species in the West African Islands. The British Chaffinch is widely distributed throughout our islands in all suitable localities.

The male has the upper parts slate grey shading into black on the forehead, into dull chestnut on the mantle, and into green on the rump; the wing coverts are black and white, forming a very showy band across the wings, which are dark brown margined with yellow; the tail is brown, the outermost feathers marked with white. The underparts are pale chestnut, with a strong cast of pink on the breast and abdomen, and merging into white on the under tail coverts. The female has no black forehead, no slate grey on the upper parts, which are nearly uniform greyish brown cast with green, and the underparts are much paler. The Chaffinch is very fond of frequenting the roads, where it may be seen moving about in a shuffling half-hopping, half-walking manner, picking up tiny seeds and insects. If alarmed it flies up into the trees and hedges where, as likely as not, it commences to *pink-pink* in a very lusty manner. In spring-time the cocks utter a loud, sharp *u-whet, u-whet*, and being pugnacious little creatures are often seen chasing each other furiously amongst the branches, or rising for many feet straight up into the air buffeting and sparring. The short, vigorous love song of the male is also one of the most characteristic bird sounds in the hedgerows at this season. For long periods he will remain in one spot uttering this glad little lay, a run of twittering notes, finishing up with an emphatic and louder double one. This song is the herald of the breeding season, and commences in February or March, the nest, however, not being built before April. It is a wondrous nest this home of the Chaffinch, only equalled for neatness and beauty by that other little procreant cradle we have just been admiring farther along the hedgerow, the hollow ball of moss and lichens fabricated by the Long-tailed Titmouse. One of its most interesting features is the way that the outer materials are selected and made to harmonise with surrounding objects. A site is commonly chosen in the crotch of a lichen-covered stem; and here the outer part of the cup-shaped nest is formed almost entirely of green moss, over which is placed a thick garniture of lichens attached by spider's webs, so that when finished the tiny home looks like a piece of the branch itself. The lining consists of wool, hair, feathers, and vegetable down. This is but one

type; many others could be described. I have seen nests in hawthorn hedges thickly garnished with scraps of paper, evidently an effort to assimilate the outer portion with the clusters of bloom all round it. The four or five eggs are pale bluish green, spotted and speckled with rich brown and often suffused with paler brown. The old birds become very noisy and anxious whenever their nest is approached. After the breeding season Chaffinches become more or less gregarious, and are then met with on the open fields, about stackyards and on stubbles. They also often congregate with Bramblings (conf. p. 168).

In the tall hawthorn hedgerows especially we shall be pretty sure to meet with the nest of the Greenfinch, although it may be found quite as commonly in shrubberies. The **Greenfinch** (*Ligurinus chloris*) belongs to quite a different type of Finch, and is included in the Grosbeak section of the family, composed also of the Hawfinches and Cardinals (*Coccothraustinæ*). These Finches have an exceptionally stout and powerful bill, and the nasal bones extend backwards beyond the front line of the orbit. The sub-family has representatives in America, Europe, and Asia and North Africa. The Greenfinches (*Ligurinus*) are specially characterised by the stout conical bill in which the nostrils are situated nearer to the ridge of the upper mandible (culmen) than to the lower or cutting edge. Five species are known, confined to Europe, North Africa, and Asia. The Common Greenfinch is found in all the timbered and cultivated portions of the British Islands, and its range is increasing with the planting of trees and the making of hedgerows. The male has the general colour of the plumage yellowish green, brightest on the rump, and suffused with slate grey on the underparts and on the head, neck, and wings. The black wings have bright yellow margins; the tail is blackish brown and yellow. The female is a much more dingy and browner looking bird, but the yellow pattern on the wings and tail is similar. The Greenfinch is rather a shy and retiring bird, fond of cover, especially during summer, and then oftener heard than seen. The monotonous note of *peezh* is a very characteristic one, but as a songster the bird ranks low, its twittering music being heard to best advantage when several males are joining in chorus. During

summer it feeds largely on insects and larvæ, but at other times seeds and grain form its chief support. It is particularly fond of the seeds of the sunflower, and will come far to visit the great round pods of this plant in September and October. The earliest nests are made in April. The outer materials consist of twigs, moss, dry grass, and roots, the lining to the cup of wool, hair and feathers. The four to six eggs are white, sometimes tinged with blue or green, spotted and speckled with reddish brown and greyish brown. The old birds do not take much pains to conceal their nest, but the dense nature of the foliage around it is sufficient protection. Greenfinches are somewhat social birds in the breeding season, and after the young are reared they form into flocks and frequent grass meadows, where the numberless small seeds are an attraction. In the closer hedges, especially those that surround orchards and gardens, the **Bullfinch** (*Pyrrhula vulgaris*) finds a congenial haunt. The Bullfinches belong to the *Fringillinae* division of the family (conf. p. 73), and less than a dozen species are contained in the genus *Pyrrhula*. These finches are distinguished by the peculiar convex rounded profile of the bill and the rich metallic blue black wings and tail, and pale, mostly white, rump. The Bullfinches are mostly distributed over Europe and Asia, but there are forms in the Azores and Alaska. The Common Bullfinch is found widely distributed over the British Islands, especially in cultivated districts, but becomes rarer and more local in Scotland and Ireland. Unfortunately it has been sadly decreased in numbers in many districts by the birdcatcher. The male has the head, tail, and wings glossy blue black, but there is a touch of red on the innermost secondary and spots of grey on the wing coverts; the rump is white, the rest of the upper parts clear bluish grey; the chin is black, the rest of the under-surface brick red, except the under tail coverts and vent, which are pure white. The female has the same pattern of colour, but the red is replaced by brown. Young birds have no black on the head. There can be little doubt that Bullfinches pair for life; they are usually met with in couples flitting along the hedge sides in a characteristic up and down dipping course, the white rump showing very conspicuously as the birds pass on before us. Unlike

most other members of the family they are never seen in flocks, at most a brood and their parents may be met with, but only in summer. The monotonous piping call-note of *dyŭ-dyŭ* often proclaims the presence of this shy bird amongst the leaves, and in the breeding season the male gives forth a pleasing twittering song, so lowly warbled that it can scarcely be heard more than a few yards away. Insects form its principal food for a short time in summer, but its ordinary fare consists of seeds, buds, and various kinds of berries. As the love season comes on the Bullfinch becomes more retiring and secretive. The first nests are made in April, and when placed in hedges the thickest part of the cover is selected. Here, in a fork or on a flat branch, the nest is made externally of intricately-laced twigs, upon which a cup of roots and hair, a few feathers and bits of wool is woven. The four or five eggs are greenish blue, spotted with purplish brown, paler brown, and grey. The hen sits very closely, slipping quietly off if disturbed, and the male is rarely seen near the nest until the young require food. I have sometimes noticed a dozen Bullfinches in company just before the pairing season.

Two Buntings may be mentioned as typical hedgerow species. The commonest of these is the **Yellow Bunting** (*Emberiza citrinella*), congeneric with the Snow Bunting already mentioned (conf. p. 134). The Yellow Bunting is one of the most widely distributed of British birds, and may be found almost everywhere from Land's End to the Orkneys. It is also one of our showiest native species, the male having a bright lemon yellow head, slightly streaked with brown; the remainder of the upper parts is chestnut streaked with blackish brown, the wings dark brown with yellow edges, the tail dark brown margined with chestnut brown, and patched with white on the two outer feathers. The underparts are yellow, suffused on the breast with olive, and streaked on the breast and flanks with reddish brown. The female has a much less amount of yellow on the head, and the streaks on the underparts are more numerous. Gregarious to a varying extent during winter the flocks of Yellow Buntings break up in spring, and then the male birds make themselves very conspicuous by sitting on the topmost sprays

of the hedges and monotonously drawling out their simple love song—a string of twittering music ending with several harsh and long drawn out notes which has happily been likened to the words, “*A little bit of bread and no chee-ee-ee-se.*” The call-note is a harsh *churrze* or *chee chee churrze* in spring. Time after time is this song repeated, answered by other cocks in the vicinity, occasionally varied by a chase and a fight, for they become pugnacious at this season. This Bunting commences to sing in February, and continues in voice until September. In April we may search for the nest of this Bunting, which is very often built upon a hedgerow bank, concealed amongst the grass and other weeds. At other times it is placed in the gorse bushes which flourish by the wayside or amongst the thickets of briar and bramble that in many spots rise buttress-like against the hedge. It is a somewhat bulky, cup-shaped structure, made externally of dry grass, stalks of plants, roots, and moss, and lined with fine roots and horsehair. The four or five eggs are greyish or purplish white, scrawled and pencilled with dark purplish brown and grey. The curious manner in which the markings are distributed, as if done with a pen, have gained for the Yellow Bunting the local name of “Writing Lark.” The food of this Bunting consists largely of seeds and grain, but in summer insects and larvæ are eaten. There are few prettier sights than a flock of these birds, called “Yellow-hammers” or “Yoldrings” in some parts of the country, fluttering up from the fields and perching on the bare hedges, especially when the ground is white with snow. The **Cirl Bunting** (*Emberiza cirlus*) is a much more local and rare bird, and is chiefly to be met with in the hedgerows of the southern English counties, not extending north of the valleys of the Thames, Avon, and Severn. It bears a somewhat close resemblance to the Yellow Bunting, but may instantly be recognised by the absence of yellow from the head, the blackish brown throat, followed by a yellow spot which is succeeded by an olive band across the breast; the wing coverts are olive and the rump olive brown. The female still more closely resembles the female Yellow Bunting, but has no yellow in the plumage. This Bunting very closely resembles its ally in habits, but shows a more decided preference for

trees in the hedgerows. The song resembles that of the Yellow Bunting, but the long-drawn finishing notes are wanting. It is just as persistent a singer between April and July. The nest resembles that of the Yellow Bunting, and is built in similar places with, however, a marked preference for a bush or thicket. The four or five eggs are more rotund than those of the Yellow Bunting, but the ground colour is greyer, and the markings are bolder, more inclined to spots. This species is just as gregarious as the preceding in winter.

Still keeping principally to the southern hedgerows, say to those south of Yorkshire, and especially between Kent and Devonshire, we may be sure of meeting with the **Red-backed Shrike** (*Lanius collurio*) between the months of May and August. This species introduces us to yet another family of the PASSERIFORMES. The Shrikes (Laniidæ) are chiefly remarkable for their strong, notched,



WOODCHAT SHRIKE.

and often hooked bill, more or less beset with rictal bristles, scutellated metatarsi, wings containing ten primaries, in some species long and pointed, in others short and rounded, tail of variable shape, composed of twelve feathers; and, finally, for the barred plumage of the nestling. Nearly two hundred and fifty species are

included in this family, which may be regarded as an Old World one, a few species only being found in North America. Several sub-families are recognised, the British species being included with the Typical Shrikes (Laniinæ). About forty species are included with the Red-backed Shrike in the genus *Lanius*. These birds have a hooked and toothed bill, and the nostrils nearly concealed by short stiff plumes and bristles. They are almost as widely ranging as the family itself. The Red-backed Shrike may be readily recognised. It has the head and neck grey, a broad black band passing through the eye, the back chestnut, the wings black with rufous edges, the tail black and white, the underparts greyish white with a rosy tinge. The hen is plainer

coloured, mostly brown above and greyish below, barred with brown. This Shrike is one of the latest of our summer migrants, not appearing much before May even in extreme southern localities like Devonshire. It probably pairs for life, and returns to its old haunts with pleasing persistency. There is nothing retiring or skulking about the Red-backed Shrike, although he is wary enough. If he is in a locality at all, he will soon be observed perched conspicuously on some bare branch at the side or the top of the hedges, or even on a telegraph wire, fence, or gate-post. If you watch him you will see him from time to time start into the air to catch a passing insect and return to his perch; or as likely flit off in a gliding sort of way to another bush or part of the hedge, uttering at intervals a harsh *churr-churr-chack*. His methods of feeding are very peculiar. In common with his kindred, he has a way of impaling his victims on the sharp thorns in the hedges, while he devours them piece by piece, or where he can keep them as in a larder for future use. This habit has gained for him the name of "Butcher Bird." The principal food of this Shrike consists of beetles, bees, grasshoppers, field mice, lizards, and young birds, and even the adults of such species as Whinchats, Linnets, and Buntings. Last summer (1901) a pair of these Shrikes brought up their young almost entirely on nestling Linnets, the stout buckthorns in the vicinity serving as skewers and hooks upon which the poor little fledgelings were impaled and eaten. Shortly after its arrival the male Shrike may be heard uttering the few rambling notes that form its song. The open cup-like nest is built at the end of May or early in June, and is very often placed in a hedge by a much frequented path or highway. It is rather large and loosely put together, formed of the stalks of plants, in many cases with the dry flowers attached, dry grass, roots, and moss, and lined with finer roots, wool, and hair. The four to six eggs vary considerably in colour, the ground colour being pale green, pale buff, white or salmon pink, spotted, freckled, and blotched with olive brown, or reddish brown and grey. The young are fed by their parents for some time after they leave the nest, and throughout the period of incubation the male bird is aggressive and conspicuous in

the immediate vicinity. This Shrike migrates south in September.

Our last bird of the hedgerows is the **Cuckoo** (*Cuculus canorus*). The Cuckoo is the sole British representative of a distinct and important sub-order which, with the Plantain-Eaters, constitute the order *Cuculiformes*. The Cuckoos (*Cuculidae*) comprise the sole family in the sub-order *Cuculi*, and are distinguished by their zygodactyle feet (two toes before and two behind), but present so much variability in other structural characters that these are best dealt with in the several sub-families into which the family naturally divides itself. Of these sub-families only one, the *Cuculinae*, contains a British species. These Typical Cuckoos are mostly long-winged birds, the wings containing ten primaries, with a long graduated tail of ten feathers and a bill very similar in form to that of a large Thrush. The Cuckoos comprising the genus *Cuculus* have a very long graduated tail, very short metatarsi, a rounded nostril, and no metallic colours in the plumage, nor crest. The Cuckoo is found in almost every part of the British Islands during summer. The general colour of the upper parts is leaden grey, the wings brown barred with white, the tail brownish black, tipped and more or less marked with white; the throat and breast are grey, the remainder of the underparts dull white barred with brown. The sexes when adult are similar in colour; but the young is very different from its parents, brown barred with rufous and white above, pale brown below barred with dark brown. The Cuckoo arrives in our islands about the middle of April. I have no faith in the March call of the Cuckoo, notwithstanding the fact that it invariably receives newspaper record in almost every part of our islands from three weeks to a month before the most venturesome Cuckoo has dared to appear in the mildest corner of them. An old Wood Owl, perhaps by way of playing a practical joke (and presumably with a complete knowledge of what is going on in the newspapers), has been known to hoot in the daytime in March, and his possibly purposely disguised voice sounding across woodlands has been known sufficiently to resemble the cry of the bird of spring to deceive the ornithological tyro; whilst farmers' boys very frequently amuse them-

selves by anticipating and imitating the note of the Cuckoo as they sit astride some gate frightening the Rooks from the newly sown corn; or, as likely as not, as they trudge along behind the cattle on their way home from the fields to the byres. Until, therefore, a Cuckoo has been actually shot in our islands in March, I will not believe that it visits them until April. The Cuckoo may be found in almost every kind of country, from the moors to the agricultural districts, in woods and fields, in gardens and orchards, parks and so forth, but the bird is very often seen on the hedges, especially in trees in such places, and in hedges the female finds many of the nests in which she drops her eggs. The familiar call of the *male* Cuckoo requires but passing notice here. It is uttered (often during flight) through April and May, in all its power and fulness, but perceptibly changes in tune towards the summer solstice, given forth as if with difficulty, and often consists of a treble *cuck-cuck-oo*. The note of the female resembles the sound made by bubbling water. Brief allusion has already been made to this species (conf. p. 43). I may add here that the bird is somewhat solitary in its habits, is rarely seen to visit the ground, save during the laying season, and that when perched on a tree, hedge, or wall it frequently dips its body up and down, raises and lowers its outspread tail, and utters a harsh chattering cry. I am of opinion that the Cuckoo pairs annually, each couple remaining together until the eggs are all deposited in the alien nests. I need hardly say that the hen Cuckoo neither makes a nest nor hatches or rears her own offspring. The eggs of this species are laid in the nests of certain other birds from about the end of May to the beginning of July, and all care of them and the future chicks is left to the foster parents. In the hedgerows the hen Cuckoo drops many an egg into the nests of the Hedge Accentor, the Whitethroat, the Blackcap, the Bunting or a Finch. Possibly each female deposits from five to eight eggs during the course of a season. They vary considerably in colour, and although they frequently resemble those amongst which they are placed, this is by no means universally the case. The usual ground colour is greyish or greenish white, spotted, freckled, and blotched with various shades of reddish and olive brown, intermingled

with specks of dark brown. The food of the Cuckoo chiefly consists of insects and larvæ, hairy caterpillars especially; the young are brought up on the food sought by their foster parents—worms, grubs, and insects chiefly. I am not a convert to the opinion that the newly-hatched Cuckoo ejects its fellow nestlings. Even the aid of the camera has been sought to confirm what is an obvious fallacy, and in every case the experiments have been made under exceptional circumstances, and with young Cuckoos certainly not “newly hatched.” The Cuckoo migrates south in August and September, the young being, if not exactly accompanied by adult birds, at least in touch with them on the route, and by no means seeking their way south by instinctive knowledge as some ornithologists believe. A chapter could be very easily devoted to the life history of this most interesting bird, but our space is even now exceeded, and we must pass on to scenes and pastures new.



GREY SHRIKE.



HAUNT VII

AMONGST THE EVERGREENS

CONTENTS : The House Sparrow—The Tree Sparrow—The Hawfinch—The Goldfinch—The Brambling—The Starling—The Robin—The Redstart—The Garden Warbler—The Spotted Flycatcher—The Barn Owl—The Redwing—The Fieldfare—Among the Evergreens in Winter—At Roosting Time.

WE will now for a brief period confine our attention to the bird life that not only haunts the shrubberies, but may also be met with in the gardens and orchards near them; and, whilst there, we may also take the opportunity of glancing at the few species most intimately associated with dwelling-houses, outbuildings, and so forth. Here then seems the most fitting place to mention that little feathered rascal, the **House Sparrow** (*Passer domesticus*). A member of the Typical Finches (*Fringillinæ*) (conf. p. 73), the House Sparrow is associated with a number of other species presenting similar characters in the genus *Passer*. They have a somewhat stout and swollen bill, the culmen curving towards the tip; the prevailing colour of the plumage is brown relieved with black and white. They are distributed over most parts of the Old World, but are normally absent from the Australian region. The House Sparrow, however, has been introduced not only to that area by man, but also to the New World. So far as our own land is concerned no bird more thoroughly deserves its specific name. It is found in almost every part of them where human habitations have been made, and in some districts has established thriving colonies on the coast which seem quite independent of man and all his works. A Sparrow with its plumage free from grime and dirt is by no means a plain-looking bird. The male has a dark grey crown surrounded with chestnut, the back chestnut streaked with black, the lower back and rump greyish brown, the wings and tail brown, the white tips to

the lesser wing coverts forming a conspicuous bar; the sides of the face are greyish white, the throat and fore neck are black, and the rest of the underparts are greyish white, washed with brown on the flanks and under tail coverts. The female lacks the chestnut and black, also the grey crown and white wing bar, brown above marked with darker brown, pale buffish brown below. The Sparrow is a resident everywhere, and also one of the most social and gregarious of our native species, assembling in vast flocks in summer and autumn upon the stubbles and fields, and breeding in colonies the size of which is mostly determined by the amount of accommodation. It will feed on almost everything, and there can be no doubt is a serious pest in many agricultural and horticultural districts. I may, however, add that it feeds its young almost exclusively on minute insects such as aphides, and is very diligent in its search for them. Its cheery chirp is too well known to require description here, but in the breeding season a variety of low tremulous notes are uttered by the male which are almost as musical as the song of the Greenfinch. The breeding habits of this bird present various features of interest. Two very distinct types of nest are made, a globular one in trees or amongst ivy, and an ordinary open one when placed in holes and under eaves. The materials consist of dry grass, straws, and a variety of rubbish of all kinds too numerous to mention, usually lined with an abundance of feathers. The entrance to the globular nests is very cunningly concealed, and the student has often to pull them in pieces before the eggs can be reached. These eggs are five or six in number and vary enormously in colour, bluish white or greyish brown, more or less thickly mottled, blotched, and spotted with many shades of brown and grey. The House Sparrow breeds in almost every month of the twelve, but is most active in this respect during spring and summer. The **Tree Sparrow** (*Passer montanus*) is a much rarer and more local species, widely dispersed over the British Islands, but nowhere common, and often met with far from man's habitations. It may, however, be frequently seen consorting with the House Sparrow near farmhouses and in the open fields. It is a smaller bird, and instead of having a grey crown has a chestnut head and nape,

black ear coverts encircled by white, and a double bar across the wing coverts. In this species the sexes are of equal brilliancy. Its habits are much the same as those of the House Sparrow, but it is a warier bird and its note is more shrill and musical. It also utters a very similar trill during the breeding season. You may find its nest in a variety of situations, sometimes under eaves and in holes of walls and thatch, but more frequently in a hole in a tree or cliff, and occasionally in the deserted nest of a Crow or a Magpie. It resembles that of the House Sparrow, and like that species is much better made when in an open site than when in a covered one. Dry grass, straws, and roots are the usual materials of the outer part; feathers compose the lining. The four to six eggs vary considerably, but are perceptibly smaller than those of the common species, and are more glossy in texture.

Still confining our attention to the Finches, we shall find a particularly interesting species in some of the shrubberies, orchards, and large gardens. This is the **Hawfinch** (*Coccothraustes vulgaris*). It belongs to the same sub-family as the Greenfinch (conf. p. 154). The Hawfinch (*Coccothraustes*), of which but three species are known, may be readily distinguished from all other members of the Finch family by the shape of the secondaries, which are truncated at the tip into something like the shape of a bill-hook. Their large size and enormous bill are further characters of note. They are confined to Europe, North Africa, and Asia. The Hawfinch is certainly a very local bird, but owing to its secretive nature it is apt to be much overlooked. It breeds locally in every county of England, but is only a stray visitor to Scotland and Ireland. Perhaps it becomes more abundant in the counties round London, although I used to see it in fair numbers as far north as Yorkshire years ago. It cannot readily be mistaken for any other British bird. The head is reddish brown, the nape grey, the remainder of the upper parts cinnamon brown, palest on the rump and upper tail coverts, the wings are glossy black, with metallic reflections, and the primaries are marked with white; the median wing coverts are also white, forming a bar across the wing; the tail is black, with a white spot on the four outermost feathers, and a small white tip to the remainder.

The underparts are brown suffused with yellow, shading into white on the under tail coverts, and into black on the chin and round the base of the bill. The female closely resembles the male in colour. I know of few shyer or more skulking birds, and the student rarely gets more than a fleeting glimpse at it as it hurries off from one part of the dense cover to another, or as it flies up from the ground into the trees. By careful stalking, and with the aid of our binocular, we may possibly get a better view of it when it pays a visit to the cherry-trees or the rows of peas in the garden. It is a clumsy-looking bird, but can not only hop about the branches with agility, but also fly with speed, often in an undulatory manner, rising up into cover rather than dropping down into it. The call-note of this bird is a long-drawn *peezh* resembling that of the Greenfinch, and a shrill *twit* is uttered frequently during flight. In the love season the male strings a few notes together into what might be called a song. During the breeding season insects and larvæ are largely sought, but at all other times seeds, nuts, berries, and fruits form its favourite fare. The stones of fruit are preferred to the fruits themselves. The Hawfinch is a rather late breeder, beginning to build towards the end of April and laying in May. The large, flat, open nest is often built at some distance from the ground in a fruit-tree in the orchard, in the tall hedge of a garden, or amongst the branches of an evergreen in the shrubbery, whilst the ivy growing in trees is also sometimes selected. Externally it is made of twigs, roots, the dry stems of plants and scraps of lichen, and is lined with dry grass, fine roots, and hair. The four to six eggs are pale olive, pale bluish green, or pale buff in ground colour, streaked and spotted with dark olive brown and greyish brown. On some eggs the streaks are almost as intricate as those on the eggs of the Yellow Bunting. Throughout the nesting period the old birds become more skulking and wary than ever. In some cases several pairs nest in the immediate vicinity of each other. The young are tended for some time after they leave the nest, and in autumn and winter the birds are usually met with in small parties.

In many gardens, orchards, and shrubberies we shall not fail to meet with the pretty **Goldfinch** (*Carduelis*

elegans). It belongs to the *Fringillina* and is one of two species which are generically distinguished by their long and sharply pointed bills. The Goldfinch may be still said to breed throughout England and Ireland, although more local and scarce in Scotland. The adult has the general colour of the upper parts chestnut brown, except the crown and a band extending round the ear coverts, which are black, the forehead, which is crimson, and the upper tail coverts and the nape, which are white; the wings are black, barred with yellow and tipped with white; the tail is black, with spots of white on several of the outermost feathers and tips of white to the others. The throat is crimson, the sides of the head and the remaining underparts are white, shading into pale buffish brown on the flanks. The female resembles the male in colour. Young birds have no red or black on the head, and the white spots are suffused with buff. The Goldfinch is more specially a bird of the orchard, garden, and shrubbery during the breeding season; at other times it affects the open fields and waste grounds where weeds are plentiful. The oft-repeated call-note of this species—a melodious *twee-eet*—is sure to attract attention if the bird itself remains unseen, as is so often the case in summer when, like most Finches, it becomes shy and retiring of habit. The cock also utters a sweet little song in the love season, a melodious twittering refrain, something like that of the Linnet. The food of this Finch in summer is chiefly composed of insects and larvæ, but at all other times the bird is an inveterate seed-eater, preferring those of such weeds as thistles, groundsel, charlock, docks, dandelions, plantains, and so forth. When feeding on these it is restless and active enough, showing little concern at being watched, and is more or less gregarious. Many Goldfinches used formerly to pass our islands on migration, but the incessant netting by bird-catchers has greatly decreased their numbers. The nest of the Goldfinch is usually placed in a fork of some fruit-tree in an orchard, or in an evergreen in the shrubbery or garden. It is a neat little structure made of moss, fine roots, dry grass stems, and vegetable down bound together with cobwebs and garnished with lichen, and lined with down, hair, and feathers. The cup is most

neat and round, about two inches in diameter, and one inch in depth. The four or five eggs are greenish or greyish white, spotted and streaked somewhat sparingly with purplish brown and grey. Throughout the period of incubation the old birds keep remarkably quiet and are consequently much overlooked in comparatively public places. In winter time many shrubberies are the headquarters of another pretty little Finch, the **Brambling** (*Fringilla montifringilla*). Congeneric with the Chaffinch this species is a winter visitor only to the British Islands from its home in Norway and other northern continental localities. It is very generally distributed over the British Islands in suitable spots, but somewhat erratic in appearance from year to year, and is probably more abundant in Scotland than elsewhere. The full beauty of the Brambling is most apparent in summer, during the bird's absence from us. Then the general colour of the upper parts is black, shot with blue, shading into white on the rump; the wings are relieved by white, and the coverts are marked with chestnut and white. The chin and throat are pale chestnut, the rest of the underparts white, spotted on the flanks with black. When the Brambling reaches us just after its autumn moult most of the black on the upper parts is concealed by long, rusty fringes to the margins of the feathers, and the bill, which in summer is bluish black, becomes yellow, with a dark point only. Vast flocks of these Finches reach our islands in November, many of them returning to certain shrubberies which they have been in the habit of roosting in for years. Here, provided food can be obtained in the locality, they will remain all through the winter, retiring at nightfall to the evergreens to roost. They are most tame and confiding little birds, especially upon their first arrival, and when disturbed usually resort to the tallest tree-tops in the vicinity, where, in a compact body, they keep up a twittering concert. They are very fond of resorting to shrubberies where beech-trees are plentiful, for they are exceptionally partial to the mast. They diligently search for the nuts upon the ground, and most dexterously shell off the husk, besides picking up many small seeds. At times they resort to the fields near by, especially such as have been newly manured, and during

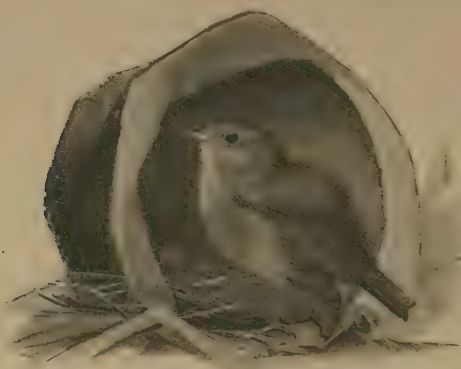
snowstorms they visit dungheaps to search for worms and grubs. Chaffinches are frequently to be seen in their company, and towards evening the scene becomes most animated as the birds seek their roosting places amongst the evergreens. These Finches leave our islands early in spring, retiring north to the birch forests of Scandinavia and elsewhere to breed. The Brambling is songless in our islands, but in summer warbles a little in a low, melodious strain. The nest is not so neat as that of the Chaffinch, but is made of similar material, and the half-dozen eggs very closely resemble those of that species.

We have already met with the **Starling** (*Sturnus vulgaris*) on several occasions (conf. pp. 18, 43), and we can now take the opportunity this haunt affords of completing our sketch of its life history. The Starling is a member of the family *Sturnidae*, another section of the vast order *Passeriformes* or Perching Birds. The Starlings resemble the Crows in the structure of their wings and feet, but are of course much smaller and weaker birds. The bill is somewhat weak and flattened, the nostrils swollen, and with no rictal bristles over them. The metatarsi are not scutellated behind, but in front only; and the first or bastard primary of the wing is very small. The young differ greatly from their parents in colour. Upwards of a hundred species are recognised, divisible into several natural and well-defined groups. The Typical Starlings (*Sturnus*) number some nine species, all of which are remarkable for their metallic-spotted plumage, and bear a close resemblance to the ordinary British form. The feathers on the head, throat, and breast are very long and hackle-like. The Starling is generally distributed over all suitable parts of England and Wales, but becomes more local in Scotland, where, however, it is steadily on the increase; whilst in Ireland it is most abundant during winter, local at other seasons. At a distance the male Starling in summer looks black, but upon closer examination it will be found that almost every feather is deep metallic green or purple. Many feathers behind the neck, and on the sides of the rump especially, have buff tips, and the dark brown wings and tail have silky black margins; the bill is lemon yellow. In autumn, after moulting, much of this metallic beauty is concealed by buff fringes above

and white ones below, and the bill is dark brown. The female is not so richly glossed as the male, the plumage is much more spotted above and below at all seasons, and the long hackle feathers are almost absent. The young when they leave the nest are dingy brown, palest on the throat and abdomen, and without a trace of metallic sheen. This plain dress is cast in autumn for the brighter one of maturity. From January onwards the Starling is almost as familiar a bird about the homesteads as the Sparrow. The male also thus early in the year commences to sing, his wings drooping, his feathers hanging loosely about him, and his bill pointing more or less to the sky. Although this song cannot lay much claim to melody, it is pleasing and varied. Then he will continue in song almost without cessation through the year. The favourite breeding places of this interesting bird are either on or near to man's habitations. Many, it is true, nest in cliffs and hollow trees far from the homesteads, but with these we need not concern ourselves now. The Starling breeds in colonies so far as the accommodation will permit, as may be seen by the readiness with which a disused dove-cot will be appropriated. It commences to build in March or early April, and always chooses a covered site for its nest. Any hole big enough, in buildings of every kind, is eligible. The big untidy nest is made of straws, grass, and roots, sometimes lined with a few feathers; whilst odd bits of all kinds of rubbish (paper, rags, worsted, twine, &c.) will be worked into the structure on occasion. The four to seven eggs are pale greenish blue, rather elongated and rough in texture, but with some gloss. It is astonishing how the hen bird will continue laying egg after egg in the nest as regularly as they are removed. Young and old flock on the pastures as soon as the former can fly. I used to think that the Starling was double-brooded, but after additional observation I believe but one brood is reared under normal circumstances. A still more familiar species is met with in shrubberies, gardens, and near homesteads, that sprightly universal favourite the **Robin** (*Erithacus rubecula*). It may also be seen in various other haunts we have already visited, but the present is by far the most popular one. The Robins, of which there are three or four species only, are contained in the Turdine

genus *Erithacus*, the principal characters of which are the slender bill abundantly beset with rictal bristles, the large first primary nearly half the length of the second, the orange-red breast, and the similarity of colour between the sexes. Robins are confined to the Old World, being found across Europe and Asia to Japan, and in North Africa from the Canaries, &c., eastwards. The Robin is widely distributed over the British Islands, found everywhere in cultivated districts as far north as the Orkneys. Although resident in our country, the Robin is a bird of regular migration in many parts of Europe, and, sad to relate, numbers are caught in autumn by our less sentimental continental neighbours for the table. There is no more familiar or trustful species among British birds. To describe it here seems almost unnecessary. The general colour of the upper parts is olive brown; the forehead, sides of the face, chin, throat, and breast are orange red, touched with grey on the sides of the neck and throat, below the breast and extending on to the abdomen, while the flanks are pale brown. The Robin endears itself to us not only by its familiarity, but also by its perennial song. Quick, alert, and trim in its every movement, it frequently drops almost at our feet from the bushes, and with a bob of its head and a flick of its tail, perhaps accompanied by a few shrill ticking notes, to announce its arrival, unconcernedly begins to pick up its food. Then flying up into the branches, as likely as not it commences to warble that sweet and plaintive little song with which we are all so familiar. This song continues through the year, save during the few weeks of moult in July, and sounds particularly charming in autumn, when all the countryside is tinged with the sadness of approaching dissolution. In spring and summer it is not quite so prominent, because so many other bird songs compete with it and oust it from pride of place. The Robin is a most regular and methodical little singer, coming to one certain spot almost to the minute each day to warble, continuing its melody far into the dusk, and exciting all other of its fellows within hearing to rivalry, and at certain seasons to combat, for the bird is a most pugnacious one. It seldom wanders far from a chosen haunt, is of a solitary disposition, but resents the intrusion of

others of its kindred, and in severe weather especially charms us with its pert familiarity. There are few more harmless species, for its food consists almost entirely of insects, grubs, and worms, and the crumbs and scraps that are thrown out "to feed the birds." It will occasionally take a few currants and such-like garden fruits, and in the hedges and shrubberies picks up blackberries, wild strawberries, and the like. In haunts like the present the Robin's nest may be met with almost anywhere. In the garden or orchard it is often placed in some old discarded flowerpot or can lying in a quiet corner or half buried in the tall grass and weeds by the hedge side; in



ROBIN'S NEST IN OLD HAT.

the shrubbery a bank or a bed of ground-ivy or a hollow in the exposed roots of a tree. Our illustration here depicts it in an old hat, of all places! Holes in walls and amongst ivy growing over them are also favourite spots. The bulky cup-like nest is made of moss, dry grass, quantities of dead leaves and roots, and lined with finer roots, hair, and, very rarely, a few feathers. The five to eight eggs are white, spotted and freckled with brownish red and grey. The bird sits very closely, often allowing itself to be touched by the hand ere quitting the nest, and when disturbed utters a long-drawn and very plaintive piping note of anxiety. The young are soon abandoned after they leave the nest, and the parents usually rear

another brood, the eggs for the first being laid in March or April, for the second in June or July. The **Redstart** (*Ruticilla phæniceus*) may also be met with in the present haunts of bird life, and rears its young in a hole of many an orchard tree or garden wall, returning year by year to the old spot with pleasing persistency. We have, however, already met with it in woodland haunts (conf. p. 70), so that it requires no further notice here. The **Garden Warbler** (*Sylvia hortensis*) also finds a summer haunt in these localities, and may occupy us for a little time with its economy. It is congeneric with the Dartford Warbler (conf. p. 98), the Blackcap, and the Whitethroats, and is one of our local birds, found in most parts of England except West Cornwall; in Wales it breeds in one or two counties only (Pembroke and Brecon); it is not known north of Banffshire in Scotland, and is rarest of all in Ireland (Cork, Tipperary, Fermanagh, Antrim, and, possibly, Dublin and Wicklow). Its colours are most sober and unobtrusive, the upper parts being olive brown, darkest on the wings and tail, and the underparts greyish white, suffused on the breast, flanks, and under tail coverts with pale olive brown. The female is similar in colour. This Warbler is a late migrant, not reaching its British haunts before the beginning of May. It delights, like most of its kindred, in dense cover, frequenting the underwood in shrubberies and nurseries, and seems specially attracted to large gardens and orchards. Shy, secretive, and retiring, it keeps close to cover, but when searching for food often ventures out into the open, where, however, it always seems nervous and restless, and returns to the bushes when alarmed. The male has a very beautiful and charming song, rivalled only by that of the Blackcap, but is not so loud or possibly so continuous. Like that bird, the Garden Warbler will often sing on a topmost bough, but more often sits and warbles in the shade of the thickets, through which it creeps with surprising quickness, uttering a sharp *tec-tec* at intervals. It feeds chiefly upon insects, but as soon as the garden small fruits are ripe it confines itself much to them. Like the Blackcap, it will also eat the berries of the ivy and the elder. Its young are principally reared upon caterpillars. The males arrive a short time before the females, but on the appearance of the

latter nest-building soon commences. The cup-shaped nest is often built amongst gooseberry and currant bushes, or in a row of peas; at other times in thickets or amongst tall nettles and other weeds. It is flimsy and net-like, though beautifully neat, made of fine dry grass stalks, a scrap or two of moss, and a few roots, and is lined with a little horsehair. The four or five eggs are white, sometimes tinged with buff or green, in ground colour, marked with olive brown, buffish brown, and dark brown, and with underlying spots of grey. They cannot be distinguished with absolute certainty from those of the Blackcap. No social or gregarious tendencies are shown, and the Garden Warbler leaves our islands for the south again towards the end of September.

In the present haunt we must also include the **Spotted Flycatcher** (*Muscicapa grisola*). Its congener, the Pied Flycatcher, we have already met in our wanderings through the woods (conf. p. 72), and now, as promised, I will proceed to give a few particulars of the group to which both birds belong. If the character of a spotted young be taken as a sign of affinity, the Flycatchers are closely related to the Warblers. They constitute the family *Muscicapidae*. Typically they have a broad, flat, and moderately long bill, slightly notched and thickly beset with rictal bristles, the nostrils being more or less concealed by stiff, hair-like plumes. The metatarsi are short, and in most cases scutellated; the wings, of ten primaries, are, in the migratory species especially, long and pointed; the tail is very variable in shape, but typically square. They are mostly small birds, many of bright and strongly contrasted colours. Possibly some three hundred species belong to this family, which is confined to the Old World, where they are almost universally dispersed. With the two British species about eighteen others constitute the genus *Muscicapa*. The birds in this genus have long wings, a rather long, flattened bill, and short metatarsi. The Spotted Flycatcher is of wide dispersal in the British Islands, breeding in every part suited to its requirements, but becomes rarer and more local in the extreme north. The upper parts are greyish brown, with darker markings on the head; the lower parts are greyish white, shading into buff on the flanks and into

light brown on the breast, which is obscurely streaked with darker brown. The female resembles the male in colour, but the nestlings have the upper parts profusely spotted with buff. This Flycatcher is another late migrant to us, not appearing much before early May. It loves to frequent the orchard side where the branches hang over into the fields or lanes, or the garden walls and hedges, always preferring an open spot where it can chase its insect prey without hindrance or obstruction. If found in the shrubberies it will invariably be seen on the branches near the broad walks, where it can chase the insects as they fly past its lurking-place. Here it spends the live-long day, from time to time fluttering in the air, and either returning to the same spot or flitting off to another perch to repeat the action at intervals. If you are near enough—and the bird is by no means shy—you will hear quite distinctly the sharp snap of the broad bill as it closes upon the unlucky insect. The note of this Flycatcher is very like that of the Whinchat, a smartly uttered *chee-tic, chee-tic, chee-tic-tic-tic*, whilst every now and then the bird gently fans its half open tail. Its food is apparently composed exclusively of insects and larvæ. You may find its nest, towards the end of May or early in June, in many situations, a favourite spot being on trellis-work or the horizontal branch of a fruit tree trained along the garden wall; another favourite site is in a crevice of the bark on a tree trunk or in a shallow knothole, whilst holes in walls, and the beams in sheds and outhouses are frequently selected. The small cup-shaped nest is made of dry grass and moss, garnished with cobwebs and the wings and wing cases of various insects, and lined with roots, hair, and feathers. The five or six eggs range from bluish white to pea green, blotched, freckled, and spotted with reddish brown of various shades. When the young can leave the nest, often before they can fly for any distance, the old birds assemble them on some open perch—a bare bough, the iron hurdles round a haystack, or the coping of a wall—and feed each in turn all the day through. Young and old depart south in September.

In many of these outbuildings, as well as in hollow trees near them and in shrubberies, the **Barn Owl** (*Strix flammea*) takes up its residence. I have already dealt

with the sub-order (*Striges*) to which this bird belongs (conf. p. 82). There we found that the sub-order was divided into two families, and it is to the second of these (*Strigidae*) that the Barn Owl belongs. The Screech Owls, as the birds in this family are called, have no notches in the posterior margin of the sternum, and the furcula is attached to the keel of it. The edge of the claw on the middle toe is toothed or serrated, and the inner and middle toes are about equal in length. The Screech Owls are almost cosmopolitan in their distribution, and number but a few species. The genus *Strix* contains about half a dozen species and varieties, all more or less resembling the ordinary Barn Owl in general appearance, and with the feet covered with bristly plumes. The Barn Owl is



BARN OWL.

found throughout the British Islands, except in the Outer Hebrides and the Orkneys and Shetlands, but becomes local and rarer in the Highlands and other wild districts. It is a very pretty bird with a long, pear-shaped, white face, surrounded by a frill of stiff plumes, and with bright black eyes. The upper parts are sandy buff, speckled

and vermiculated with grey, black, and white; the wings and tail are barred with brown; the underparts are white without spots in the fully adult male, sparingly spotted with dark brown in the female, which otherwise resembles her mate in colour. No species of Owl is very familiar to the ordinary observer, but the Barn Owl is certainly the best known. As it is nocturnal, opportunities for watching its ways are few and unfavourable, but most readers are possibly familiar with its appearance as it sits blinking and grotesque-looking in some corner of a loft, a church-tower, or other gloomy building. It dislikes the light, coming out at dusk to search for food, when it beats up and down the meadows and shrubbery sides, flits about the stackyards and in and out of the buildings in a very noiseless and ghostly way, uttering at intervals a wild unearthly screech enough to startle the most phlegmatic. It is a most unsocial creature, only living in company with its mate, and



PLATE VIII.—THRUSHES. A CORNER OF THE SHRUBBERY.

often hunting and flying alone. If one chances to meet with it abroad in daylight we may be sure it has been disturbed and is not flying thus of its own choice, as it pretty plainly indicates by its anxiety to get back into darkness again. Mice and rats are its favourite food, but it does not miss an opportunity of adding a little bird to its fare, a cockchafer, or even a bat. It breeds at intervals all the summer through, usually laying its three to six white eggs in the hole in which it passes the day, where they rest on no other bed than the refuse of its food, most of which is cast up in pellets. The eggs are somewhat small for the size of the bird, and so rough in texture that they cannot readily be mistaken for those of a Pigeon. The young are voracious creatures, and are fed for some time after they are able to fly; their snoring note in the nest is very characteristic. This note has been said to be peculiar to the Owlets, but there is evidence which proves conclusively that the old birds "snore" as well.

In the present haunt we shall not fail to meet with the two migratory Thrushes that visit our islands in autumn and pass the winter in them. Perhaps the best known of these is the **Redwing** (*Turdus iliacus*), congeneric with the Song Thrush and Misselthrush (conf. p. 71). It is widely distributed over our islands, but is perhaps most abundant in the well-cultivated midland, southern, and eastern English counties. It is the smallest of the British Thrushes, very like a Song Thrush in colour, but with a conspicuous pale buff eyestripe and reddish chestnut flanks and under wing-coverts; the spotting on the under surface is not so bold, and more streaky in appearance. The Redwing is a very gregarious bird, reaching our islands in flocks towards the end of October or early in November. Possibly most of the Redwings that winter with us come from Scandinavia. Another interesting fact is the regular way in which they visit certain localities from year to year. They are specially fond of making their headquarters in some large shrubbery—not the bijou affairs that enclose a suburban villa, but the roomy spaces that surround so many of the "stately homes of England," where the undergrowth is a dense thicket of evergreens and saplings of deciduous trees, and above which tower oaks and elms and beeches in vigorous splen-

dour, as likely as not furnishing accommodation in their wind-swept tops for a flourishing rookery. Using such a spot for roosting purposes, the Redwings obtain their food on the surrounding park lands and fields, often going for some distance each day, but always returning at dusk to the old familiar sleeping-place. In our country the Redwing is songless, its principal note being a shrill yelping cry, and very often, when about to roost, it may be heard to chatter softly in a not unmusical strain, or utter harsh and rasping cries when alarmed. When flying it utters a musical double note, something like that of the Sky Lark when rising. Redwings always prefer an animal diet of grubs and worms if they can obtain it, and may be seen throughout open weather upon the grass lands scattered all over the pasture, hopping about in quest of food. If disturbed the flock usually bunches together eventually and settles on the nearest trees. The hedges may be scarlet with holly and hawthorn berries, but not one will be touched, and when the frost comes and animal food becomes scarce, the poor Redwings are amongst the first birds to suffer, becoming thin and emaciated and dying in some cases in large numbers. The Redwing perceptibly decreases in numbers towards the end of March, and most have gone north again by the middle of April, migrating in flocks as they came. It may be interesting to remark that even in summer these social and gregarious instincts do not altogether lapse, for the bird breeds in societies of varying size amongst the birch and alder trees. The nest is something like that of the Blackbird, and the four or five eggs are similar in colour but much smaller. Our second species, the **Fieldfare** (*Turdus pilaris*), congeneric with the preceding, is almost as widely dispersed. It is found during winter in almost every cultivated district, including the Orkneys and the Hebrides. The Fieldfare is by far the handsomest of our British Thrushes. The prevailing colour of the upper parts is slate grey, the head being spotted with dusky black, and the back is chestnut brown; the wings and tail are dark brown; the throat and breast are buffish brown, the centre of the abdomen pure white, as are also the axillaries, which show very conspicuously during flight; the throat and breast are streaked with black, and the buffish flanks mottled with the same

colour. The female resembles the male in colour. Gregarious, like the Redwing, during its sojourn in our islands, the Fieldfare reaches them a little later, seldom arriving much before the first week in November. It is also not so much attached to a locality, although in mid-winter especially it is very regular in its visits to certain shrubberies to roost. It is more nomadic in its habits, doubtless because it feeds on berries to a much greater extent and has to wander from one locality to another as the supply becomes exhausted. Apart from its very distinctive coloration, the Fieldfare may also easily be recognised by its note, a loud and clear *sack-sack*; it is quite songless in our country, although it utters a mixed warbling and chattering melody during the pairing season. Just previous to roosting the bird may occasionally be heard to utter a low guttural warbling cry, but that is all its attempt at song with us. It is one of the shyest of birds and equally wary too, allowing one to approach it most nearly at roosting time. The Fieldfare leaves us for its Arctic breeding grounds in April, moving from the most southern haunts in March. It breeds in societies like the Redwing, building its nest in birch and alder trees. This nest closely resembles that of the Blackbird, and the four to six eggs are indistinguishable from those of that species.

The present haunt of bird life becomes exceptionally interesting in winter time. There is no better way of encouraging birds than by offering them the nightly shelter, at this inclement season, of an abundance of evergreens. Birds of many species simply crowd into these places at nightfall—species that may have passed the day on the open fields and hedges or about farm-buildings, gardens, and orchards—all seem drawn at dusk to the warm and friendly foliage of evergreens. Not only so, but such perennial songsters as Robins, Hedge Accentors, and Wrens become even more tuneful when shelter of this kind is available. A stroll through such a spot will convince the reader far more than pages of written description can ever do. Let him wander there towards sunset on some wintry afternoon. Birds are everywhere. The Stormcock is singing lustily from the tree-top, the Robin is carolling from the bushes, the Wren pouring

forth a torrent of music in his usual impatient way. The Hedge Accentor joins in the chorus with his feeble little song, and possibly a Thrush will be trying over a few of his earliest notes. Birds are continually arriving—parties of Titmice and Finches, noisy Blackbirds with a clattering cry or the usual *pink-pink*, settle amongst the dark foliage; Jays and Magpies from the open fields come noisily to roost, and the rattle of wings high up in the crowns of the firs announce the appearance of the Ring Dove. As the day draws to its close, and the last rays of a blood-red sun glint on the tall brown trunks of the firs, flocks of Redwings arrive and settle in the tree-tops, dropping at intervals into the sheltering evergreens below; the noisy *sack-sack* of the Fieldfare announces that bird's arrival, and shortly the handsome birds alight in numbers upon the brushwood and saplings. Here and there the trained, sharp, and accustomed eyes of the ornithologist will detect many a solitary visitor drawn here by the common impulse of all. There a Creeper runs nimbly over the tree trunks; he is not feeding now, he has come into the warm shrubbery to find a sleeping-place; there a Song Thrush flies hurriedly up from the bare orchard, and disappears at once into a towering holly. As the darkness creeps on the scene gradually becomes quieter and quieter, less animated, less varied; the notes of the Blackbirds and Robins keep up the longest, but, with the settling night, silence comes, and the hundreds of birds have finally settled down to rest.



HAUNT VIII

BY RIVER AND POOL SIDE

CONTENTS: The Sedge Warbler—The Reed Warbler—The Bearded Titmouse—The Reed Bunting—The Kingfisher—The Moorhen—The Coot—The Spotted Crake—The Water Rail—The Grebes—The Little Grebe—The Great Crested Grebe—The Mallard—The Teal—The Shoveler—The Wigeon—The Pintail Duck—The Garganey—The Gadwall—The Pochard—The Tufted Duck—The Marsh Harrier—Montagu's Harrier—The Short-eared Owl—The Redshank—The Ruff—The Jack Snipe—The Bittern—The Mute Swan—The Black-headed Gull.

ONE of the most pleasing features about the open-air study of bird life is its oft-recurring variety. In our islands a complete change of scene can soon be made, and with it an entirely new series of birds come into notice. Some of the most interesting species in our avifauna are dwellers by the water side, and we shall find that this particular haunt is quite as attractive from an ornithological point of view as any that has preceded it. We have already visited those mountain streams that dash and boil and tumble down the hillsides; our haunt of bird life now is by the side of more lowland waters, the slower running river, the quiet pools and stagnant ditches with the marshy lands around them, where quite a different bird population is presented. One of the commonest of these river and pool-side birds is the **Sedge Warbler** (*Acrocephalus phragmitis*). This bird introduces us to yet another characteristic genus of the *Sylviniæ* (conf. p. 67). The Reed Warblers (*Acrocephalus*) are distinguished from the other members of the sub-family by their very small bastard primary and slightly rounded tail, the outside tail feather being longer than the under tail coverts. They have a large bill, broad and depressed at the base, beset with fairly well-developed rictal bristles, and the plumage is mostly brown. There are less than a score of species confined to the Old World, where, however, repre-

sentatives occur in almost every part. The Sedge Warbler is found wherever suitable haunts occur throughout the British Islands. It is a summer migrant to us, reaching our islands towards the end of April. It has the upper parts russet brown, many of the feathers having a dark centre, which give it a very spotted appearance on the head and back, but are almost absent from the rump, which is more rufous than the rest. The pale eyestripe is very conspicuous, and the underparts are very pale buff, darker on the breast and flanks. The female resembles the male in colour. The favourite haunts of this Warbler are thickets, osier beds, reeds and flags, and choked-up ditches and backwaters. It is shy and secretive enough, but this is perhaps due more to its restless disposition than to any desire to avoid observation. If somewhat difficult to see at times, its presence is very easily detected by its harsh, varied, and chattering song. It is a most persistent singer, and, if silent, a stone thrown into the cover will seldom fail to start it into voice. It warbles almost continuously day and night, especially during calm, fine weather. For some time after its arrival it is somewhat restless and unsettled, the herbage is rather low, and the birds may be watched flying about, even visiting the trees and hedges. Although not exactly social birds, many pairs will reside on a small area of suitable ground. As the cover becomes more dense the bird is far more rarely seen, for then it threads its way amongst the vegetation more like a mouse than a bird, and the principal sign of its presence is the continuous song. This song is very sweet and pleasing in parts, but is continually being spoiled by the introduction of a variety of harsh and often croaking notes. The bird feeds on insects and worms. The nest is made in May or June, and is usually built close to the ground, concealed by the surrounding vegetation, never suspended on reeds, and sometimes in a bush or hedge. It is a loose, cup-shaped structure, made of coarse grass, bits of moss and sedge, and lined with horsehair, a little vegetable down from the willows, and, rarely, a few feathers. The five or six eggs are greenish white in ground colour, but this is so closely covered with yellowish brown or darker brown that little of it is visible; there are also almost invariably a few lines or scratches of very

dark brown. The old birds become rather anxious when disturbed at the nest, and utter a scolding *churr* of remonstrance. It migrates south in September. The **Reed Warbler** (*Acrocephalus arundinaceus*) is another member of the genus, but much more local in its distribution. Its headquarters are chiefly in the southern, eastern, and midland counties of England. You will not find it in Devon or Cornwall, it is rare in Wales (Llangorse Lake and Brecon) and the north of England, but is common at Hornsea Mere in Yorkshire. It does not breed in Scotland nor Ireland. The general colour of the upper parts is olive brown with a tinge of rufous on the rump; the eyestripe is very faint; the underparts are pale buff, shading into almost white on the throat and abdomen. The sexes are alike in colour. The Reed Warbler arrives in its summer haunts at the end of April or early in May. Its favourite resorts are reed beds, and the fringe of reeds that skirts the banks of canals, dykes, and slow-running rivers; but it may be met with also in osier beds and amongst willows and alders and waterside thickets of any kind. Its habits are very similar to those of the Sedge Warbler, and it is almost, if not quite, as musical and noisy. The song, heard by day and night, is the same chattering recitative, sweet and melodious at times, but punctuated by harsher notes that spoil the general effect. Shy and retiring, it keeps most persistently to the cover, and, as a rule, the trembling stems alone mark the direction of its hurrying progress through the dense vegetation. Now and then it may be noticed clinging to a taller reed than the rest, or crossing the waterways in a fluttering, feeble manner, but it soon drops into the cover, and is flushed with the greatest difficulty. It breeds in May and June. The nest may be either supported over the water on three or four reed stems, or slung from the slender branches of willows and alders, the materials being woven round the reeds or twigs. It is a deep, well-made, cup-shaped structure, formed principally of dry sedge, grass, broad dead leaves of reeds, and roots, and lined with finer roots, horsehair, and occasionally a few feathers—or a little wool and down. The four or five eggs are very pale greenish blue, spotted and blotched with greenish brown, freckled and sometimes streaked with darker brown, and with underlying mark-

ings of pale brown and grey. The old birds utter harsh, scolding notes when disturbed, and the young are fed for some time after they leave the nest. The food of this species is chiefly insects. It leaves us for the south in September.

Still keeping to the reed-beds, we may perhaps be fortunate enough to fall in with the **Bearded Titmouse** (*Panurus biarmicus*), more appropriately named the Bearded Reedling, for its actual near affinities with the Titmice are somewhat dubious. In any case, it is a most aberrant little bird, and the sole member of a distinct family (*Panuridae*). Unlike the Titmice, the nostrils of the Reedling are exposed and oval (not round and feathered) and enclosed in an operculum, whilst the colour of the plumage is very different from that of any known species of Titmouse, as is also that of the eggs. The family characters are the same as the generic ones. It is found in various parts of Europe and Asia. This pretty bird is unfortunately a very local one, confined to the reed forests of Norfolk and possibly Suffolk, where it is resident and sedentary. The male has the head slate grey, the lores, the space in front of the eye, and a long moustache of pointed feathers black; the nape, back, rump, wings, and tail rufous chestnut suffused with a rosy tinge on the tail, the outer feathers of which are white towards the tip and black at the base; the wings are varied with black and white. The throat and breast are grey suffused with pink, the flanks chestnut brown, the abdomen pale buffish white, and the under tail coverts black. The female has a less rosy flush, the head is uniform in colour with the back, and the black moustache is wanting, as are also the black under tail coverts, which are chestnut brown, like the flanks. The secretive habits and inaccessible haunts of this bird render its observation somewhat difficult. Now and then a fleeting glimpse may be obtained as the little creature flits across the spaces of open water between the reed beds, or as it clings to a tall stem on the outer fringe of the forest. Its call-note is a metallic *ping*, but, if alarmed, it expresses its concern by a harsh *churr*, and, in the breeding season especially, utters a plaintive *ee-ar-ee-ar*. In summer it feeds chiefly on insects and fresh-water mollusks, at other times on the seeds of reeds

and other aquatic plants. Its breeding season commences in April and continues to July, two broods apparently being reared in the year. The nest is never attached to the reed stems, but snugly hidden under a hassock of sedge or similar vegetation, is open and cup-shaped, made outwardly of dry grass and leaves, bits of reed and rush, and lined with fine grass and the downy flowers of the reeds. The five to seven eggs are yellowish white, covered with irregular lines and specks of dark brown. Living in pairs during summer, at other times it usually consorts in parties, the broods and their parents, roaming about the reedy wilderness. There are few pools, slow-running rivers, canals, and stagnant waters of any great extent where we shall fail to meet with the **Reed Bunting** (*Emberiza schæniclus*). It is congeneric with the Snow Bunting (conf. pp. 33, 134) and the Yellow Bunting. It breeds commonly, if somewhat locally, throughout the British Islands, including the Hebrides and the Orkneys, from which fact it may be inferred that the bird is by no means confined to the waters of the lowlands only. The adult male has the head and throat black, the general colour of the upper parts is chestnut streaked with black, the outermost tail feathers are marked with white. The cheeks and a broad collar are white, as is also the rest of the underparts, with a greyish tinge on the breast and brown streaks on the flanks. The female wants the black head and throat, these parts being reddish brown, and the breast is streaked with brown. In autumn, after the moult, much of the male bird's beauty and conspicuous colours are concealed by pale margins to the feathers. During summer this bird is usually met with in pairs, the male obtrusively perching on twigs and stems of plants hanging over or growing in the water, and flitting before us in undulatory stages as we walk along the bank. At intervals he bursts into song, a monotonous and harsh refrain, resembling that of his congeners, whilst he calls to his mate in a prolonged *seese*, as he sits upon the reeds. It is in summer that his habits are most riparian; at other seasons he often leaves the waterside to search for food on the stubbles, the roadways, or even in the stackyards in company with various other hard-billed species. Insects and larvæ form his summer fare, grain and seeds in winter.

You may find his nest in April in the south, a month later in the north, built on or near the ground under the shelter of a tuft of rushes, or amongst grass and other plants on the banks of the water. It is open and cup-shaped, made of dry grass and moss, and scraps of dead aquatic vegetation, and is lined with fine grass, hair, and the soft dry flowers of reeds. The four to six eggs are pale olive or buff with a purple shade, boldly streaked and spotted with dark blackish brown and grey. The streaks are not so fine and intricate as on the eggs of the Yellow Bunting. The male often betrays the nest by his habit of persistently perching near it; and I have known the female sham lameness to decoy me from the neighbourhood.

The gem of the waterside is the **Kingfisher** (*Alcedo ispida*), a stray jewel, he always seems, from lands where birds are more highly favoured in the way of colour. The Kingfishers, together with the Rollers, Motmots, Bee-eaters, Hornbills, and Hoopoes (all essentially tropical birds, and many of gorgeous plumage), form yet another sub-order (*Coraciæ*) of the *Coraciiformes* (conf. p. 2). The Kingfishers (*Alcedinidæ*) are a well-marked and homogeneous family, the principal external characters being the long, powerful, and spear-shaped bill, short and weak metatarsi, generally scutellated, and the feeble and



BILL OF KINGFISHER (*Alcedo*).

comparatively useless feet, the third and fourth toes being joined together for the greater part of their length. The wings are short and usually rounded, containing ten primaries; in the typical species the tail is short and is composed of twelve feathers. There is no aftershaft to the contour feathers. They are divisible into two sub-families, the British species forming one of the *Alcedininae*. The Kingfishers belonging to the genus *Alcedo* are practically crestless, have a narrow, long, and compressed bill much exceeding the tail in length. Although the Kingfisher cannot be called common or abundant anywhere, it is widely distributed over the British Islands in places suited to its requirements. Persecution has rendered it scarce in many localities, but on the other hand it may be easily overlooked. It frequents almost every kind of waterway,

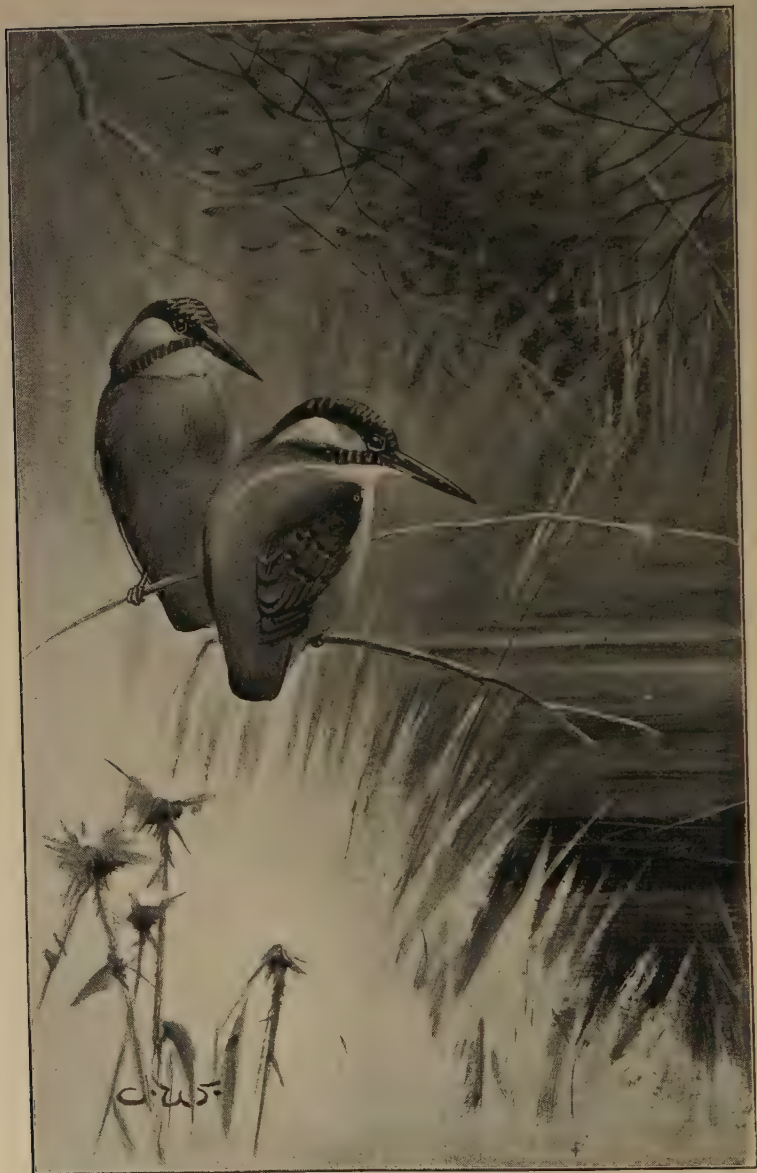


PLATE IX.—KINGFISHERS—FROZEN OUT.

Face p. 187.

WILLIAM WEAVER
COLLECTOR
1887

and is not uncommonly seen on ponds and even the sea-coast. The upper parts are cobalt blue and vivid emerald green, barred with dusky black on the head and spotted with dusky green on the wing coverts. The underparts, including the sides of the face, are chestnut, merging into white on the throat and the sides of the neck, and into greenish on the sides of the breast. The female resembles the male in colour. Although clad in such brilliant hues the Kingfisher somehow eludes observation save on the wing, when it appears to be nothing but an indistinct blue object, a shaft of azure light darting swiftly along above the water. Generally we start it quite unexpectedly from a perching place over the pool, and uttering a shrill *peep-peep* it hurries rapidly away. It is for the most part a very solitary bird, haunting particular spots to which it seems much attached. It feeds on small fishes, crustaceans, leeches, the larvæ of insects, notably of the Mayfly and so forth, capturing many of them by a rapid plunge into the water, where it disappears for a moment and then returns to its perch with the captured prey. Its eggs may be found from April to June. Its favourite nesting place is in a hole in a bank by the waterside, either dug out by itself or the burrow of a water rat is annexed. The entrance is often well concealed by bushes or bare roots, but the accumulated droppings very often betray the secret. Three or four feet from the entrance, where the hole expands into a small chamber, six or eight round, shining white eggs are deposited on a bed of fish bones and other food refuse. Both parents assist in hatching these, and the young, which are voracious little creatures, are fed most diligently by the old birds. When scarcely fledged the nestlings come out of the hole, and sit on the branches near by, and are fed and tended for some time after they can fly. They always disappear from the neighbourhood sooner or later like young Robins and many other birds, the adult Kingfishers preferring to keep their own special haunt to themselves, and driving them away. The haunt and appearance of the Kingfisher have been most happily conveyed in the frontispiece to the present book.

Where the waters are still and deep, and the banks are clothed in aquatic vegetation, or the shallows are fringed with reeds, rushes, and other tall plants, we shall

find the **Moorhen** (*Gallinula chloropus*). This species belongs to the plain-toed section of the Rail family, the *Rallinæ* (conf. p. 35). The Gallinules or Water Hens (*Gallinula*) have long, slender toes, with a very narrow membrane along the edge, and a small, red frontal shield; the wings are nearly four times as long as the metatarsus, and furnished with a small recumbent spine; the tail is short, and composed of twelve feathers. The bill is short, stout, and compressed, swollen near the tip, and the culmen expands at the base into a broad frontal plate. Some nine species are known, which are distributed over most parts of the world. The Moorhen is a resident and found in almost every part of the British Islands, including the Orkneys and the Hebrides, but it does not appear to breed in the Shetlands. The general colour of the upperparts of this bird is dark greenish brown, shading into slate grey on the head and neck, and into brown on the wing and tail; the outermost primary is edged with white, and the frontal plate is crimson. The underparts are slate grey, merging into brown on the flanks, which are prettily striped with white, and the feathers on the abdomen are more or less motiled with white; the longest undertail coverts are white. The sexes are similar in colour, and the newly-hatched young are clothed in black down. Either on land or in the water the Moorhen is a most graceful little bird. It walks very daintily about the grassy banks of the pool, incessantly flicking its short tail, and when it takes to the water it swims most buoyantly, with a peculiar bobbing motion of the head. It is by no means a shy bird, if left unmolested, as any one who cares to take the trouble may ascertain for himself in the many public parks and gardens where this species lives in an almost semi-domesticated state. Only the other day I stood and watched at arm's length several pairs of Moorhens with their broods of tiny chicks on the Serpentine in Hyde Park, the females especially feeding their young with insects which they picked up from the surface of the lake. The bird of course is warier in less frequented places, and nothing can exceed the cunning way it will evade pursuit by diving and swimming under water to a refuge in the distant bed of flags, reeds, or equisetums. Sometimes it will remain under water in the shallows with

just its bill above the surface; if caught out in the open, which is a rare event, it rises in a heavy sort of way, with flapping wings and long legs dangling down, and drops again into the nearest cover. It is not a very noisy bird, its usual note being a shrill *kik-ik-ik*, uttered most frequently at dusk. It will eat almost anything—insects, larvæ, mollusks, worms, buds, seeds, and berries, often visiting trees and bushes to obtain the latter. As previously remarked it often flies about the air in circles at night above its haunts. The Moorhen begins to breed in March and rears two broods, if not more, during the summer. It is astonishing what a small pool will content this species in some districts. I have known it to rear its young by the side of a water hole not more than a few square feet in extent in an orchard. Its nest is made amongst the vegetation on the banks or in the water, in the latter situation often floating moored to the flags and rushes. It is sometimes built on drooping branches almost sweeping the water, and occasionally even in a tree. It is a moderately high pile of straws, grass, reeds, rushes, and other aquatic vegetation, the finest material usually being reserved for the lining. The six to ten eggs are pale buff in ground colour, spotted and speckled with reddish brown and grey. The old bird very frequently covers them when she leaves them voluntarily. The Moorhen is a somewhat social bird, but is never seen to gather into such large flocks as the Coot does. The **Coot** (*Fulica atra*) frequents very similar localities, but is seldom or never seen on such small sheets of water as so often content the preceding species. The Coots form what is termed the Lobe-toed section of the Rail family (*Fulicinae*), and are distinguished from the other Rails by having the toes furnished with scolloped lobe-like membranes. They are otherwise very much like Moorhens, with a short, stout, and compressed bill expanding at the base into a broad frontal plate. About a dozen species are known, all contained in a single genus, and are distributed over most parts of the world, except in polar latitudes. The Coot, although more local than the Moorhen, has an equally wide distribution over the British Islands. The general colour of the plumage is slate grey, nearly black on the head, neck, and under tail coverts; the secondaries are tipped with white, forming a narrow

bar across the wings, which is seen best during flight. The frontal plate is white. Coots are gregarious in winter, and often assemble into large flocks, which leave the fresh waters during continued frost and retire to the sea. Its food

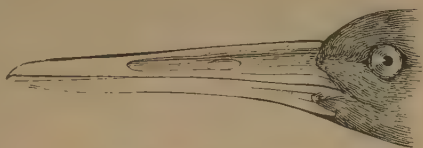


HEADS OF COOT (*Fulica*).

resembles that of the Moorhen; and in addition the bird eats large quantities of grass, like a Goose. Its note is a clear and loud kō, which

may be heard a long way across the water. It swims and dives with equal skill, and is by no means an ungainly bird upon the land, walking sedately and gracefully. Even in summer the Coot is a very sociable bird, and numbers of nests may be found within a small area. Its domestic arrangements are very similar to those of the Moorhen, but the nest is larger. The six to twelve eggs are pale stone colour, dusted and speckled with blackish brown and grey. Two other Rails require notice, but they are much more local and rare. Both belong to the plain-toed section of the family, and one of them is congeneric with the Corn Crake or Land Rail (conf. p. 34). This is the **Spotted Crake** (*Crex porzana*). Although widely distributed it is nowhere common, and has its chief headquarters in East Anglia, between the estuaries of the Thames and the Humber. It breeds locally in Wales, and in Scotland up to the Moray Firth, but in Ireland apparently only does so in Roscommon and, possibly, Kerry. The general colour of the upper parts is olive brown, streaked with dark brown, and spotted with white; the forehead, eye-stripe, throat and breast are slate grey, shading into white on the abdomen, into brown on the flanks, and into buff on the under tail coverts; the breast and the sides of the face are spotted with white and black, and the flanks are barred with white and black. The female resembles the male in colour. The Spotted Crake is a migrant to our islands, reaching them in May and leaving in October. It prefers the stagnant waters which are choked with vegetation and more or less surrounded by marshes and patches of reeds, rushes, flags, and similar plants. Skulking and shy it keeps close enough to this

cover, taking wing with reluctance, and is unsociable and rarely seen. Its general habits, food, flight, and so forth, resemble those of other allied species, and call for no special mention here. The Spotted Crake commences to breed at the end of May, placing its bulky nest amongst reeds or in hassocks of rushes surrounded by water. The eight to a dozen eggs are buff or pale green, spotted and speckled with dark and light brown and grey. The **Water Rail** (*Rallus aquaticus*) is not only commoner, but much more widely distributed. It is one of the Typical Rails (*Rallus*), which are characterised by their long slender bill, longer than the head, and the forehead covered

HEAD OF RAIL (*Rallus*).

with feathers to the base of the culmen; the metatarsus is shorter than the middle toe and claw. Some ten species are known, and many sub-species which are distributed over most parts of the world, except the Australian region and polar latitudes. The Water Rail is found in almost every part of the British Islands in suitable localities. The general colour of the upper parts is olive brown, streaked with darker brown; the underparts are slate grey, shading into black on the abdomen and flanks, which latter are barred with dull white, and the longest under tail coverts are white. The bill is dark brown and orange yellow. The female resembles the male in colour. The Water Rail is subject to



FOOT OF RAIL.

much wandering movement; in some districts it is commoner in summer, in others during winter. Its favourite haunts are reed beds, and here it may occasionally be seen, especially at dusk, swimming across the open water from one patch of reeds to another, diving with a flop and a splash

at the least alarm, and is then rarely observed a second time. It flies in the usual heavy laboured way peculiar to its kind, is of an unsocial and solitary disposition,

and, like other Rails, has a habit of flying about at night in circles above the wastes of water and marsh, uttering at intervals a shrill *kreek*. Its call in the breeding season is likened by some observers to a groaning cry, uttered chiefly at night and known in Norfolk as "sharming." Its food resembles that of other species already described. This Rail is an early breeder, its eggs sometimes being laid at the beginning of April, but more generally in May and onwards to July. The nest is cunningly concealed on the bank of the water, or under the shelter of a hassock of sedge, or an arching mass of reeds. It is made of the dry stems and flat leaves of reeds, and lined with bits of rush and other vegetable fragments. The five to seven eggs are pale buff, sparingly spotted and speckled with reddish brown and grey. The young chicks, like jet-black powder puffs, take to the water as soon as they leave the shell, and are attended by both parents.

Two species of Grebes also find congenial haunts in these still waters. The Grebes (*Podicipedes*) form the second sub-order of the *Colymbiformes* already briefly



FOOT OF GREBE.

described (conf. p. 122), and are distinguished by having a moderately long-pointed bill, naked lores, lobed instead of webbed feet, and a rudimentary tail consisting of a mere bunch of soft feathers. Some score species and races are

known comprising the family *Podicipedidae*, contained in several genera. The Grebes are distributed over most of the temperate and warmer regions of the world. The commonest species is the **Little Grebe** (*Podiceps minor*), which is a resident in, and widely distributed over, every part of the British Islands suited to its needs, except the Shetlands, to which it is only a wanderer in winter. The adult male Little Grebe in breeding plumage has the general colour of the upper parts brownish black, shading into brown on the wings, the secondaries being marked with white; the chin is black, the throat, cheeks, and front of

the neck are chestnut, the remainder of the under surface is dark brown, except the under part of the wing, which is white. The naked lores are black. The female is somewhat paler. In autumn the upper parts are brown, and most of the underparts are silky white. Young in down have the head, neck, and upper parts black, striped with reddish brown, the underparts white. Like their allies, the Divers, the Grebes are marvellous swimmers, as active in the water as a fish. The Little Grebe is no exception. So long as there is plenty of cover round the margin this tiny species seems quite content upon the smallest ponds and open ditches, as well as the more extensive areas of water. It is not particularly shy, although alert enough, and may repeatedly be seen calmly swimming on some wayside pool quite undisturbed by the roar of an express train dashing past within a few feet. Although very rarely seen on the wing, it is capable of rapid and prolonged flight, and notwithstanding the very backward position of its legs, it can also walk and run with ease. Its powers of diving are extraordinary. It simply disappears beneath the surface, with no more ripple or splash than a fish would cause, rising again in some other spot to swim about snapping at insects on the surface, then diving again. It is by no means a noisy or assertive bird, its usual note being a shrill *weet*. The Little Grebe may be met with breeding from the end of March to July, rearing several broods in this interval. The nest is a more or less floating structure, in most cases built up from the bottom of the water amongst the reeds, rushes, and flags, at some distance from the bank. It is a mass of wet, rotten, and broken aquatic vegetation of all kinds heaped together, with a shallow cavity at the top more neatly lined. The four to six eggs, pointed at both ends, are white when laid, but soon become soiled. They are covered with amazing speed with pieces of weed, and so forth, when the bird leaves the nest. Several nests are often found quite close together, for the Little Grebe is social, if not gregarious, during the breeding season. It is a very sedentary bird, keeping closely to a particular haunt as long as the water remains unfrozen, but during continued frosts a move is often made to brackish water. It feeds on insects, larvæ, mollusks, small fishes, leeches, tadpoles, young frogs, and

the tender buds and sprouts of various plants. Numbers of its own feathers are often found in its stomach, but the reason for this remains a mystery. The **Great Crested Grebe** (*Podiceps cristatus*) is the largest and handsomest member of the genus, as the Little Grebe is the smallest. It is also a rarer and much more local bird, and one that is more widely dispersed in winter than in summer, at which former season it is often met with on the coast. It is commonest in England and Wales, only breeding in one or two spots in Ireland, and is still more local in the south of Scotland. The general colour of the upper parts below the head and neck is greyish brown, relieved with paler margins; the wings are chequered with white; the under-parts are white, except the flanks, which are chestnut and brown. The nuptial colours are confined to the head and neck, the former being decorated by two brown horns, and the latter by a bushy tippet of bright bay enclosed in a margin of black. This decorative plumage is lost after the autumn moult. The sexes are similar in colour, but the horns and tippet are not so much developed or so brilliant in the female. This fine Grebe is mostly confined to large, open sheets of water, where, however, plenty of cover grows on the banks. It is more or less gregarious and social, even during the breeding season, and its habits are very similar to those of the preceding bird. It is, however, far more wary, and keeps well out in the open water, the distance from shore rapidly increasing as we approach the edge of the lake. It is very interesting to watch these birds when engaged in building their nest. Much of the material consists of weed which the female especially dives for, tearing it up by the roots, and towing it along the surface to the unfinished nest. The male dives in company with his mate often enough, but does not return with a bunch of weeds so frequently as she does. The nest is often placed on an islet, or at some distance from the shore, moored to reeds and rushes. It resembles that of the preceding bird; the eggs, three to five in number, resemble those of the Little Grebe, but of course are very much larger. They are laid in April, May, and June. This Grebe breeds in colonies.

On the banks of many of these pools and sluggish streams we may often come across the **Mallard** (*Anas*

boschas). Belonging to the sub-order *Anseres* and family *Anatidæ* (conf. p. 115), it is one of the sub-family *Anatinæ*, a group of non-diving Ducks, which are characterised by having the frontal aspect of the metatarsi scutellated, and the hind toe furnished with a narrow membrane only. About eighteenspeciesof Typical Ducks are congeneric with the Mallard, and distinguished by their graduated tail feathers, pointed at the tip, and by their dull grey wing coverts. The Mallard is the commonest and most widely distributed species of the Duck tribe found in the British Islands, and one of the handsomest too. The drake in nuptial plumage must be so familiar to every reader, in a domesticated, if not in a wild, state, that space need not be taken up here in describing it in detail. It may not be so generally known, however, that in summer (as was first pointed out by Waterton), before moulting his quills, the drake assumes a plumage almost exactly like that of the duck, only darker, and for some three months he is in this state of eclipse, resuming his brilliant attire in the autumn. It is possible that this curious phenomenon is due to the helplessness of the drake when moulting his quills, being then unable to fly, and then assuming a less conspicuous dress. The plumage of the duck is equally well known and does not require description here. All these non-diving ducks prefer shallow water in which they can obtain their food by turning the body upside down and exploring the bottom with their broad bills. If alarmed, however, they paddle very quickly off from shore or rise on powerful wing to fly to less disturbed retreats. The Mallard can fly with amazing quickness; indeed Macgillivray computed its speed to be probably one hundred miles per hour. In a perfectly wild state this species is to a great extent nocturnal, feeding much at night, dozing and resting during the day. It is almost omnivorous. The quacking note must be familiar to all students, but in the breeding season a variety of other sounds are made which can find no adequate expression in writing. The Mallard breeds in March, April, and May, and water is by no means essential to

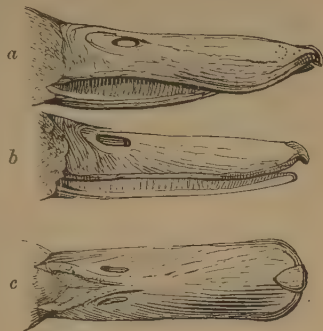


a. HIND TOE OF DIVING DUCKS
(*Fuligineæ*).

b. HIND TOE OF NON-DIVING
DUCKS (*Anatinæ*).

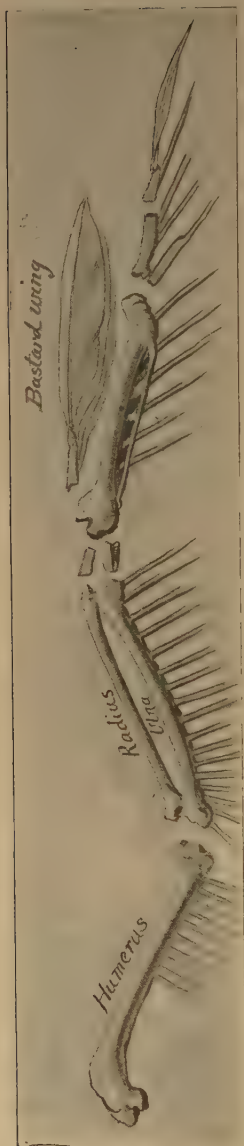
its requirements at this period, for the nest may be found in a variety of places far removed from pools and rivers. It is, however, our purpose here to examine its home by the waterside. Although not exactly gregarious during the breeding season the bird is certainly a very social one, and several nests may often be found quite close to each other. This species pairs for life. Normally the duck makes her nest on the ground amongst long grass or sedge near the waterside, or, not unfrequently, in upland places amongst heath and fern, often sheltered by bushes and brambles. It is a hollow lined with dry grass, fern fronds, dead leaves and similar vegetation, warily lined with down and a few feathers, the latter materials being added as the eggs are laid and incubated. Some dozen eggs are laid in this nest, buffish green or greenish buff in colour. The drake takes no share in incubation or in rearing the numerous progeny; but the duck is a devoted mother and shows much concern and fearlessness when her brood is threatened by danger. Some half-dozen other species of non-diving ducks breed more or less locally and sparingly near these quiet inland fresh waters in the British Islands, the habits of all during the nesting season being somewhat similar. These it may be convenient here to specify, as well as to deal with the various genera of which they are representative or typical. Beginning with the commonest we may first name the **Teal** (*Nettion crecca*), found breeding locally throughout the British Islands, and laying eight or ten eggs, cream colour, sometimes tinged with green. Fifteen species of Teals are known, generically distinguished by having the bill of moderate size and shorter than the head, not tapering towards the tip and with no fringe of soft membrane near it, the lamellæ on the upper mandible not being prominent. The Teal has a black and green speculum, and the drake has a chestnut head and neck, buff cheeks, and a broad green stripe extending from the eye down the side of the neck. The next common species is the **Shoveler** (*Spatula clypeata*), which breeds locally in England, Scotland, and Ireland, laying six to ten eggs, buffish white tinged with olive. Four species are known, the principal generic distinction being the broad spatulate bill with no soft lateral membrane near the tip, and the blue wing coverts. The

speculum of the British Shoveler is green: the drake has a green head and neck and blue wing coverts. The **Wigeon** (*Mareca penelope*) breeds locally in the Highlands of Scotland and in Ireland, and lays from six to ten cream-white or buffish-white eggs. There are but three species known, characterised by their small and not very broad bill, which is shorter than the head, tapers towards the tip where there is no fringe of soft membrane, whilst the lamellæ on the upper mandible are not prominent. The bill is blue tipped with black and the speculum green, in the British species, whilst the drake has the forehead and crown pale buff, the wing coverts white. The **Pintail** (*Dafila acuta*) breeds locally in Ireland and still more so in Scotland, laying from six to ten pale buffish-green eggs. Three species of



a. BILL OF SHOVELER.
b. BILL OF GADWALL.
c. BILL OF PINTAIL.

Pintail are known, their chief generic distinction being the long tail, the pointed central feathers projecting for some distance beyond the rest. The British Pintail has a dark green speculum shot with bronze, the drake having the head and greater part of the neck chocolate brown, the sides of the neck striped with white and the two long centre tail feathers black. The **Garganey** (*Querquedula circia*) is another exceedingly rare and local species which, however, certainly breeds on the Broads of Norfolk and Suffolk. It is a summer migrant, reaching these districts about March. The eight to fourteen eggs vary from cream white to buffish white. Five species of Garganeys are known, generically characterised by having the upper surface of the wing blue; in other respects showing much affinity with the Teals. The male British Garganey has a green speculum bordered with white, but the female lacks this character. The **Gadwall** (*Chaulelasmus streperus*) is only known to breed in one district in England, in Norfolk, and these birds have descended from a pinioned pair that had been



decoyed and turned on to a lake at Narford some fifty years ago. The eggs, from eight to a dozen, are creamy yellow. There are but two species in the genus, which is characterised by the bill being shorter than the head, with no fringe of soft membrane near the tip, and by the prominent lamellæ on the upper mandible. The British species has a white speculum, and the male has chestnut on the wing coverts. Two or three species of Diving Ducks breed regularly in the British Islands, and may as well be noticed here. These birds belong to the sub-family *Fuligininæ*, and are distinguished from the non-diving species by having the frontal part of the tarsus scutellated and the hind toe furnished with a pendent lobe or membrane (conf. p. 195). The first of these British species is the **Pochard** (*Nyroca ferina*), which breeds locally in England, Scotland, and Ireland, but most abundantly, perhaps, in Norfolk. Its eight to a dozen eggs are greenish grey. The Pochards, of which there are some eight or ten species, possess the generic character of having the primaries marked with grey, the teeth of the upper mandible prominent, the bill smooth at the base and not widening at the tip. The British Pochard has a grey speculum and a black bill, broadly banded with blue across the centre. The drake has a chestnut head and neck, a black breast, and the black upper parts are finely dusted with white.

The **Tufted Duck** (*Fuligula cristata*) breeds locally throughout the British Islands on all large sheets of water suited to its requirements from Devonshire northwards. Its eight to ten eggs are greenish buff. The five birds in this genus (the Tufted Ducks and Scaups) have a flat bill, smooth at the base and widening slightly towards the tip, which is rounded and furnished with lamellæ. The Tufted Duck has a white speculum. The male has a purplish black head and neck, ornamented with a crest of bushy plumes. A much rarer British breeding species is the **Common Scoter** (*Edemia nigra*), which nests very sparingly in the north of Scotland. Its six to nine eggs are greyish buff or yellowish white. There are some half-

dozen species of Scoters; the males are of a nearly black colour, the females brown, and the primaries are uniform in tint. The drake Common Scoter is uniform black, and has a prominent knob at the base of the bill; the bill is black with a patch of yellow on the centre of the upper mandible; the duck is brown and the knob at the base of the bill is only slightly indicated.



BILL OF BLACK SCOTER (*Edemia*).

Whilst in the vicinity of the Broads, where many of these local Ducks have their summer residence, we may take the opportunity of briefly mentioning the **Marsh Harrier** (*Circus aruginosus*). The sub-family and generic distinctions of the Harriers have already been described (conf. pp. 89, 130). Probably the only place in which this bird now breeds in England is in Norfolk, and in Ireland it seems rapidly to be approaching extinction. The adult Marsh Harrier has a rufous white head and nape, streaked with brown; the remainder of the upper parts are chocolate brown relieved with paler margins; the wings are nearly black, except the secondaries, which are grey, the latter also being the colour of the tail. The underparts are bright chestnut brown. The female resembles the male in colour, but is a trifle bigger. Its habits are very similar to those of the Hen Harrier previously noted. In slow flapping

flight it quarters the ground at a moderate height, sailing with motionless wings at intervals, and dropping down as it discovers any small animal on which it feeds. It is a persistent robber of nests, and loves to haunt open country of a marshy character. It is most active in the evening and early morning, and usually roosts on the ground among reeds. It utters a tremulous chattering cry in the breeding season, but its ordinary note is a single shrill one. It breeds in May, making a bulky nest on the ground amongst reeds and sedges, or beneath a small bush. It is made of reeds and sticks, and is lined with bits of dead herbage; the three to six eggs are pale bluish green, very rarely marked with a few spots of rusty brown.

Montagu's Harrier (*Circus cineraceus*) occasionally breeds in Norfolk, too, as well as in Wales and in suitable spots in the southern English counties. The adult male is slate grey above, with black primaries and a black bar across the secondaries; the outer tail feathers are barred with brown and white; the breast is grey, the rest of the underparts white, streaked with brown on the legs. The female is brown above, marked with rufous, pale rufous, marked with brown below. This Harrier may always be distinguished from the slightly larger Hen Harrier by the absence of a notch from the outer web of the fifth primary. Its habits are much the same; it breeds in May in a slight nest on the ground, and the four to six eggs, smaller than those of the preceding species, are pale bluish white. It is a migratory bird, arriving in April and leaving in October. In some of these fenland districts the **Short-eared Owl** (*Asio brachyotus*) also rears its young. It is congeneric with the Long-eared Owl previously described (conf. p. 83), and may not only be found residing in these lowland marshy spots, but also in many other places in the north of England and Scotland up to the Shetlands, where it affects moors, heaths, gorse coverts, and the like. The prevailing colour of this Owl is dark buff, streaked with dark brown, the wings and tail are barred with dark brown; the ear tufts are small. It is certainly best known as an autumn migrant to our islands, and will require passing mention elsewhere (conf. p. 213). It is little inconvenienced by light, and often flies about the marshes in the sun during the day, hunting for the mice, birds,

and other small animals on which it feeds. It also captures insects, and is an adept at taking small fish from the surface of the water. Another interesting fact is its habit of nesting on the open ground. It breeds in April and May, pairing very probably for life. The nest is made amongst sedge or heath, or beneath the shelter of a small bush or heap of dead reeds, and is a mere hollow, lined with a few bits of dry herbage. The five to eight eggs are creamy white. It might be thought that these white eggs would be very conspicuous in such open spots, but the bird sits closely over them and derives safety for both from the colour of its own plumage, which harmonises closely with surrounding tints. If the nest contain highly incubated eggs, or young, the old birds show much anxiety and hover round the spot. The creamy tinge of the eggs distinguish them from those of the Long-eared Owl. Here also, on these broads and marshes, we may meet with several interesting species of Wading Birds. Excepting the Lapwing, the commonest by far is the **Redshank** (*Totanus calidris*), congeneric with the Common Sandpiper (conf. p. 121). This bird breeds in most of the extensive marshy areas of the British Islands, and, although we have met with it elsewhere, the present haunt seems most suitable in which to make acquaintance with its nest. The adult in breeding plumage has most of the upper parts brown marked with buffish grey, the rump is white, the tail coverts and tail white, barred with brown, the wings are brown and white; the underparts are white, streaked with brown, especially on the throat and breast, and barred with the same on the flanks. The bill, legs, and feet are orange. In winter the upper parts are ashy brown, with a few darker and some white marks on the wing coverts, and the underparts are white, slightly marked on the breast and flanks with brown. The Redshank is a resident, but in winter resorts to the coast. It breeds in April and May, the male at this season not only perching in trees, but also uttering a trill as he floats and hovers in the air. The slight nest is well concealed under the shelter of a bush, tall weed or long grass and other herbage; it is a slight hollow strewn with a few bits of dry vegetation. The four large pyriform eggs are pale or darker buff in ground colour, boldly blotched and spotted with dark brown, paler

brown and grey. Very dainty these birds look as they run about the green marshes, or stand poised on their long red legs on the hummocks and ridges, and they are very noisy too, uttering a shrill, rapidly-repeated *tyik-tyik* when their breeding grounds are invaded. Then they fly restlessly about, or even try by shamming lameness to decoy one away from the sacred spot. On the marshes this species feeds on worms, mollusks, insects, and larvæ. The **Ruff** (*Machetes pugnax*) was formerly a common bird in many marshy places in England, but has now become so rare that we include it in this volume with considerable hesitation. Its ancient homes have been drained, and the incessant persecution of gunners and egg gatherers have brought about a sad scarcity of a very interesting bird. It is one of the semi-web-footed Sandpipers (*Totuinæ*), (conf. p. 108), and the sole member of its genus. It has a much graduated tail, a long metatarsus (exceeding the bill in length), a short bill, and the male during the love season assumes a warty face and a large breast shield of very variable coloured feathers. A few pairs of Ruffs may still continue to breed in Norfolk. In breeding plumage the male presents such a great diversity of colour that it is almost impossible to give any intelligible description in the space here available. Scarcely two males are alike, the ruff, breast, flanks, and upper parts varying in a most astonishing manner, white, chestnut, and black being arranged in bewildering confusion. The most constant colours are the brown wings and tail and the black and chestnut lower back. The smaller female has no ruff, and is black, marked with grey and buff above, pale buff below, shading into white on the abdomen. In winter plumage the upper parts of both sexes are greyish brown, marked with darker brown and grey, and the underparts are chiefly white. The Ruff is a summer visitor to our islands, reaching them at the end of April or early in May, returning south in September and October; a few birds, however, pass the winter on the British coasts. It is a polygamous bird, and the males are most pugnacious during the pairing season, regular meeting places or "hills" (some of which have been known to be used for fifty years) being established, where these curious combats take place. Each male pairs with several females, and the latter take all the

duties of incubation and rearing the young. A slight nest is made on the drier parts of the marshes, and here the "Reeve," as the female is called, lays four eggs, greenish grey in ground colour, spotted and blotched with reddish brown and grey. The food of this species resembles that of the Redshank.

From October onwards to March and April these marshy places are a favourite resort of the **Jack Snipe** (*Limnocryptes gallinula*), another member of the cleft-footed group of waders (*Scolopacinae*) (conf. p. 110). The Jack Snipe is only about half the weight of the Common Snipe, from which it is generically separated by having the bill twice the length of the metatarsus, and the innermost secondaries equal in length to the primaries. It has also only twelve feathers in the tail against the Common Snipe's fourteen; but the most important distinction of all is that there are four notches on the posterior margin of the sternum instead of two as in other members of the family. The Jack Snipe is locally, yet generally, distributed during winter throughout the British Islands. It closely resembles the Common Snipe in general appearance, but if the two birds are examined it will be noticed that the former species has no pale line on the crown, the feathers on the back are loricated with purple and green, the inner webs of the secondaries are not barred, and the dark marks on the tail take the form of streaks, not bars. The underparts are very similar. This pretty Snipe may be flushed from almost any little bog or ditch, and what is very interesting is the persistent way in which it returns each season to one particular spot, rarely straying far from it all the winter through. The Jack Snipe not only migrates at night, but obtains most of its food then, which consists of worms, insects, mollusks, crustaceans, small seeds, bits of green weed, and grass. It is a skulking, silent little creature, remaining close until almost trodden upon, when it rises with startling suddenness, and settles again as soon as possible. It breeds in the Arctic Regions, making a slight nest on the ground, and lays four very large pyriform eggs, buff or olive, blotched, spotted, and occasionally streaked with dark brown, pale brown, and grey. It rears but a single brood each season.

Here in these marshy haunts, before drainage so sadly curtailed them, the **Bittern** (*Botaurus stellaris*) once had a permanent home, but I do not think it breeds in any of them nowadays, and is known only as a winter visitor. It belongs to the same sub-order (*Ardeæ*) and family (*Ardeidæ*) as the Common Heron (conf. p. 80), and is included with four other species in the genus *Botaurus*. These birds have the spear-shaped bill serrated, and about the same length as the inner toe and claw; the metatarsus is of moderate length, but is far exceeded by that of the middle toe and claw. Bitterns have ten tail feathers only, brown and black vermiculated plumage, and a very conspicuous ruff of feathers on the neck. They are found in most of the warmer portions of the world. The Bittern is found more or less casually in most parts of the British Islands during winter. The general colour of the plumage is buff, vermiculated, barred, and streaked with black. The sexes are similar in colour, and the nestlings are clothed in yellowish down. There is no more skulking or secretive bird in our country, and during its stay here it chiefly confines itself to the dense decaying vegetation of swamps and marshes and the fringe of brown reeds and iris by the waterside, where its brown dress is in the closest harmony with surrounding tints. Otherwise it closely resembles the Herons in its habit, food, and economy generally. The booming cry of the Bittern will no longer wake the watery and marshy solitudes of our islands as it once did, for the cry is peculiar to the breeding season. When flushed the Bittern rises in a deliberate way with long legs dangling down, seldom flying far, and dropping into the first available cover. It breeds in April and May, making a nest of decayed marsh vegetation in the swamps on the ground, and lays from three to five brownish olive eggs. Passing mention must also be made of the **Mute Swan** (*Cygnus olor*), that lives nowhere in a thoroughly wild state in our islands. The Swans (*Cygninæ*) form yet another sub-family of the *Anatidæ* (conf. p. 115). They are distinguished from other members of this family by having the lores bare of feathers, the metatarsi are reticulated (not scutellated as in the Ducks), and shorter than the middle toe (a character which separates them from the Geese). They have exceptionally

long necks; the hind toe is not lobed, and the sexes are similar in colour. Seven species are known; six of these are congeneric with the Mute Swan, and have the predominant colour of the plumage white, and are distributed over Europe, Asia, and America. The habits of the Swan need not be detailed here. The bird is found in all parts of our island where man cares to extend it protection, and several well-known swanneries are in existence. The entire plumage of the adult is white. The lores, frontal knob, and most of the bill is black, except a portion of the upper mandible, which is yellow. The young are greyish brown in first plumage. The three to twelve eggs are greenish white or pale green, and both sexes assist in hatching them. There are few more graceful birds, and as an ornament to the still waters they are unrivalled.

We may exhaust the bird life of the present haunt by a visit to the breeding places of the **Black-headed Gull** (*Larus ridibundus*). The order to which this bird belongs has already been described (conf. p. 113). The Skuas, as we then mentioned, form one family, the Gulls, Terns, and Skimmers (*Laridæ*) another, and are distinguished from the Skuas by the absence of a cere to the bill, and in the webbed toes being furnished with comparatively weak short claws. Three sub-families are recognised, of which the Gulls (*Lariniæ*) form one, characterised by having a powerful and epignathous bill, that is, the upper mandible is longer than the lower one and bent down over the tips of the lower one. The tail is mostly square, but in one or two species forked or cuneate. The Black-headed Gull belongs to that section of the genus *Larus* which contains the hooded or masked Gulls, birds of comparatively small size which don a dark head for the breeding season. The Black-headed Gull is a common and widely distributed species, especially during winter, when it resorts for the most part to the coast. It has many scattered breeding places in England, and still more in Scotland and Ireland. In breeding plumage this Gull assumes a sooty-brown mask extending over the throat and most of the head, the back scapulars and wing coverts are grey, the wings black and white, the rest of the plumage white with a rosy tinge on the breast. This black mask begins to appear in February, the feathers changing colour, not being moulted. The bill,

legs, and feet are coral red. After the autumn moult the mask vanishes, except a patch on the lores and ear coverts. The young in first plumage have the upper parts brown, each feather with a pale margin, and the white tail has a broad terminal band of dark brown. This Gull breeds in inland localities in marshes and meres that contain islands. Some of these breeding places are more or less surrounded by trees, but this is no obstacle to the Gulls that frequently perch in them, and on occasion even build their nests in the branches. It is most gregarious during the breeding period and regularly resorts to certain spots, many of which have been gulleries for time out of mind. The birds begin to assemble at these inland meres and reedy pools in March, and a month later nest-building or repairing is in full progress. Most of the nests are made upon the wet ground on tufts of rushes or sedge, or amongst the reeds in shallow water, or even on the bare earth. Many of them are slight structures, mere hollows lined with a little dry grass; others are more elaborate, composed of rushes, reeds, flags, and coarse grass, and rising high above the surrounding marsh or water-level. Some of the birds add more material as incubation advances, doubtless to replace the wear and tear of the rippling water washing againsts the nests. The three, rarely four, eggs vary enormously in colour, character of marking, size and shape. The ground colour varies from dark brown to pale bluish green, spotted, blotched, streaked and blurred with dark brown, paler brown, and grey. The earlier eggs are removed in many gulleries and used for culinary purposes, the birds laying again several times in succession until the owners of the place allow the birds to hatch them in peace. It is a most fascinating sight when the pretty Gulls rise from their nests and from all parts of the marsh and water, in fluttering hosts, and commence to clamour loudly at the intrusion of their home. Some are forever settling again on their nests, the ground or the pools, others as constantly rising, so that the air continues to be a whirling mass of noisy, drifting birds as long as we remain in the vicinity. When the young are reared the gulleries are deserted and the birds betake themselves to other and more littoral haunts. We shall meet with this Gull again elsewhere (conf. p. 265).



HAUNT IX

THE SANDS AND MUDFLATS

CONTENTS: The Lesser Tern—The Ringed Plover—The Kentish Plover—The Oystercatcher—The Sheldrake—Mudflats in Summer—Short-eared Owls—Bird-Life on Mudflats in Winter—The Knot—The Curlew Sandpiper—The Purple Sandpiper—The Sanderling—The Hooded Crow—The Bar-tailed Godwit—The Whimbrel—The Grey Plover—Geese—The Bean Goose—The Pink-footed Goose—The White-fronted Goose—Black Geese—The Brent Goose—The Bernacle Goose—The Whooper Swan—Bewick's Swan—The Scaup—The Golden-eye—The Velvet Scoter.

FROM many of the pools and rivers and marshes that formed the preceding haunt it is not a very great journey to the sands and mudflats of the present one. Turning our back, for instance, on the broads and marshes, and crossing the wide expanse of dunes, we may soon reach the sands and shingles of our eastern coasts. Here in summer we are pretty sure to meet with at least two interesting birds engaged in domestic duties. The first of these is the **Lesser Tern** (*Sterna minuta*). The Terns (*Sterninae*) form a very distinct group of the Gull family (conf. p. 205), distinguished by their nearly straight, slender, and pointed bill, the two mandibles being of almost equal length, by their comparatively weak feet and short metatarsi, and by their more or less forked tail, the outer feathers being in some species very narrow and prolonged; hence in part the name "Sea Swallows" often applied to them. In the Terns, of which the Lesser Tern is a typical species (*Sterna*), the metatarsus is very short, never more than the length of the middle claw; and the forked tail is never less, and in most cases more, than half the length of the wing. The Lesser Tern is much rarer and more local nowadays than it was years ago, but it may still be met with breeding in various suitable places round the British coasts, as well as more sparingly in certain inland districts. The general colour of the upper parts is grey and white;

there is much black in the wings, and the crown and nape are black; the underparts are white. The sexes are alike in colour, but the young in first plumage (as is the case with other species) have the upper parts mottled with black and buff. This pretty little Tern is a summer migrant, reaching our islands in May. It haunts sandy coasts and spends most of its time in the air in hesitating, irregular and hovering flight. Although it usually flies slowly there is a peculiar airy buoyancy about the flight of this and all other species of Terns that render them easily recognisable on the wing. It may be remarked beating up and down the coast or over the sea backwards and forwards in pairs or in small flocks, dropping into the water at intervals to catch a small fish, and every now and then uttering a creaking note like *kree* or a harsher cry like *rrick*. Its food is composed chiefly of fishes (fry especially), crustaceans, and other small marine creatures. A few weeks after arrival it engages in nesting duties. Unlike the larger species of British Terns the present species always seems to prefer to rear its young on the mainland, which is an unfortunate circumstance, and has been the cause of its increasing rarity, owing to the facility with which its eggs can be taken. It deposits its two to four eggs not on the smooth sand, but amongst the rougher shingle and broken shells. They are greyish brown or buff, spotted and blotched with dark brown, paler brown, and grey. It is a sociable bird throughout the summer, breeding in colonies, and yearly returns to certain localities to rear its young. When its nesting places are invaded it becomes restless and noisy, flying about overhead. The eggs, however, are very difficult to find, so closely do their colours resemble the objects around them. But one brood is reared in the season, and shortly after the young can fly the birds move south, finally quitting our coasts in September. On the same coast, but where long reaches of fine sand are interspersed amongst the shingle or almost entirely replace it, we may look out for the **Ringed Plover** (*Ægialitis major*). About a score Ringed Plovers are congeneric with this species, forming a characteristic group of the sub-family *Charadriinae* (conf. p. 95). Most of these Ringed Plovers are decorated with black and white on the head. They have no hind toe,

long pointed wings, a rather rounded short tail (not exceeding half the length of the wing), a metatarsus longer than the middle toe and claw, and a bill shorter than the head. The genus is almost a cosmopolitan one. The Ringed Plover is found on almost every sandy stretch of coast throughout the British Islands, from the Shetlands south to the Channel Islands, as well as on the banks of many rivers and lochs in inland localities. The adult has the upper parts greyish brown (darkest on the wings and tail), with a white and a black band on the forehead, a dark band under the eye, a ring of white including the throat followed by a broader ring of brownish black, the remainder of the underparts white; there is also much white in the wings and tail, very showy during flight. The bill is brown, orange at the base. Flocks of this Plover may be met with during autumn and winter on the sandy portions of the coast. They are not particularly shy, if wary, and when disturbed the scattered birds rise, bunch into a compact flock, and usually fly out to sea a little way, and then come landwards to settle on another part of the beach. Here they run about in a spasmodic manner, in little fits and starts, or stand motionless upon the shingle, where they are most difficult to see until they rise with a rapidly repeated double note of *too-it*. Sometimes they may be seen dodging the rollers as they break upon the shore, running on to the wet sand to seize a scrap of food, and dart back again before the next wave can break. Its food chiefly consists of crustaceans, small worms and insects. Early in April the flocks disband and the birds scatter in pairs along the sandy reaches. Even now it is more or less social, and several nests may be found in one vicinity. Eggs may be obtained from the middle of April to the beginning of June. The Ringed Plover deposits its eggs on the fine sand; it does not make any nest, but is careful to place them above tide mark. They are four in number, pale buff or putty coloured, spotted and speckled with blackish brown and grey. In bright, hot weather the old bird sits little during the daytime, and when the breeding place is invaded by man she shows little concern, as if fully aware that her treasures are difficult to find, so closely do they resemble the sand. Passing mention might here be made of the congeneric **Kentish**

Plover (*Ægialitis cantianus*), but it is a very local bird, and only nests here and there on the coasts of Kent and Sussex. In this species, which otherwise closely resembles the preceding one, the black neck band is interrupted and represented by a dark patch on each side of the breast, whilst the hinder part of the head is brownish red. It was named the Kentish Plover by Latham, who, a hundred years ago, described it from specimens shot near Sandwich in Kent. Its habits are similar to those of the preceding species, but it is a summer migrant only to our shores, reaching them in April or May and leaving in August and September. The three or four eggs are buff, *scratched* and spotted with blackish brown and grey.

Still keeping to the sandy coasts, but confining our attention more particularly to such portions that are rocky and covered with pebbles and shingle, we may expect to find the **Oystercatcher** (*Hamatopus ostralegus*). This bird is typical of yet another sub-family (*Hamatopodinae* of the *Charadriidae* (conf. p. 79). The Oystercatchers have a very peculiar bill, there is no dertrum or swelling near the tip, and the gonys or chin angle is situated near the base; it is also very much compressed and chisel-like. The metatarsi are reticulated. About a dozen species of Oystercatchers are distributed over the world. The sub-family contains but a single genus. South of Lancashire and Yorkshire the Oystercatcher is a rather rare and local bird, but north of these counties it is very widely dispersed during the breeding season, and in some places nests on the banks of rivers and lochs. The adult has the head, neck, fore part of the back, most of the wings and the terminal half of the tail black, the remainder of the plumage white. The bill is orange and vermillion, the legs and feet pink. In first plumage the young have the dark parts brown with pale buff margins to most of the feathers; whilst in winter the old birds show a dull white band across the neck. The Oystercatcher is a resident in our islands, and in winter visits many parts of the coast from which it is absent in summer. It is one of the wariest birds along the coast at any season, and in summer one of the noisiest. After the breeding season it joins into flocks and parties and then shows a decided partiality for sands and mudflats as well as coasts where a considerable amount

of rocky beach is exposed at low water. At high tide it often rests on headlands and low islands. Upon the beach Oystercatchers are active enough, running nimbly about and often wading in the shallows and searching among the rocks for the mollusks, crabs, sand-worms and crustaceans on which they feed; mussels and limpets are eagerly sought. They fly swiftly when flushed, the white bar on the wings showing very plainly, and rarely allow any one to approach them within gunshot. As the breeding season comes on the flocks disband, but all through the summer social tendencies may be remarked, and several nests often occur on a limited stretch of shingle. The piping whistle of the Oystercatcher is now one of the most characteristic bird cries of the coast, a shrill *heep-heep-heep* usually uttered during flight and most pertinaciously kept up when the nesting grounds are approached by a human intruder. The reader may be left to imagine the din caused by a dozen noisy birds screaming together! The nest is a mere hollow in the shingle, the broken shells and pebbles being neatly arranged round and in the shallow depression. Several "mock nests"—hollows with the shingle neatly arranged—may often be found near the one that contains the eggs. Three or four eggs are laid, pale buff, blotched, spotted and streaked with blackish brown and grey. These very closely resemble surrounding objects and are not found, as a rule, without persistent search. Where the shores widen out into dunes and spacious stretches of sand that extend along the coast in monotony for miles, that beautiful Duck the **Sheldrake** (*Tadorna cornuta*) has its haunt. It is one of the non-diving Ducks (*Anatinæ*) (conf. p. 195). These rather Geese-like Ducks are generically characterised by the carpal region of the wing being white and swollen into a hard feathered protuberance or blunt tubercle; by the rather long metatarsi, and by their usually strongly contrasted colours of black, white, and chestnut. Rare on the south and west coasts of England, the Sheldrake becomes more common along the flat coast-line of the east, and is generally distributed in suitable localities in Scotland, but becomes rare and local again in Ireland. The Sheldrake has the head and upper neck black, shot with green; the lower neck white, the fore part of the body reddish chestnut, and the remainder of the plumage white,

with the exception of a band on the breast and abdomen, and a broad patch on each side of the back (including the scapulars, the primaries, and the wing coverts), which are black, the secondaries, which are green and chestnut, and the under tail coverts, which are buff. The bill and frontal tubercle are crimson, legs and feet pink. The female is not quite so large, and is similar in colour, but the knob or tubercle on the forehead is wanting. The Sheldrake rarely wanders from the coast, where it lives in scattered pairs, in parties, and during the non-breeding season sometimes in flocks. The student will remark that the flight of this species is not performed by rapid wing beats like that of the Ducks, but with slow and deliberate strokes that give one the impression of a laboured course which is more apparent than real. It is a shy, wary bird, often seen standing far out on the bare sands near the water's edge, or swimming on the sea at a short distance from it. It invariably rises long before a close approach. It does not obtain its food by diving, but pokes about the shallow water and turns upside down with the fore part of its body submerged. This food consists of grass, stems and leaves of plants, insects, crustaceans, mollusks, worms, and small fishes. This Duck walks more gracefully than most species owing to its longer legs; its call-note is a harsh *quack*; whilst in the love season a tremulous chirping note is uttered, and when the young are abroad a hoarse *kurr*. It breeds in April and May amongst the dunes, sand links, and banks, pairs for life, and often resorts to the same spot annually. The nest is usually made at the end of a rabbit-hole or Puffin-burrow, but sometimes the bird excavates one for itself, in which case it takes a nearly circular course. The nest, in some instances, is twelve or fifteen feet from the entrance, in others not more than half so far. At the end of the burrow a rude nest of dry grass is formed, which gradually becomes lined with down from the body of the bird. The six to a dozen eggs are creamy white. The nest is very difficult to find, and the old birds do little to betray its secret, both assisting to hatch the eggs. The young are taken to the shore, where they are very adept at catching sandhoppers. This practically exhausts the list of sea-birds that habitually breed on sandy or shingly coasts.

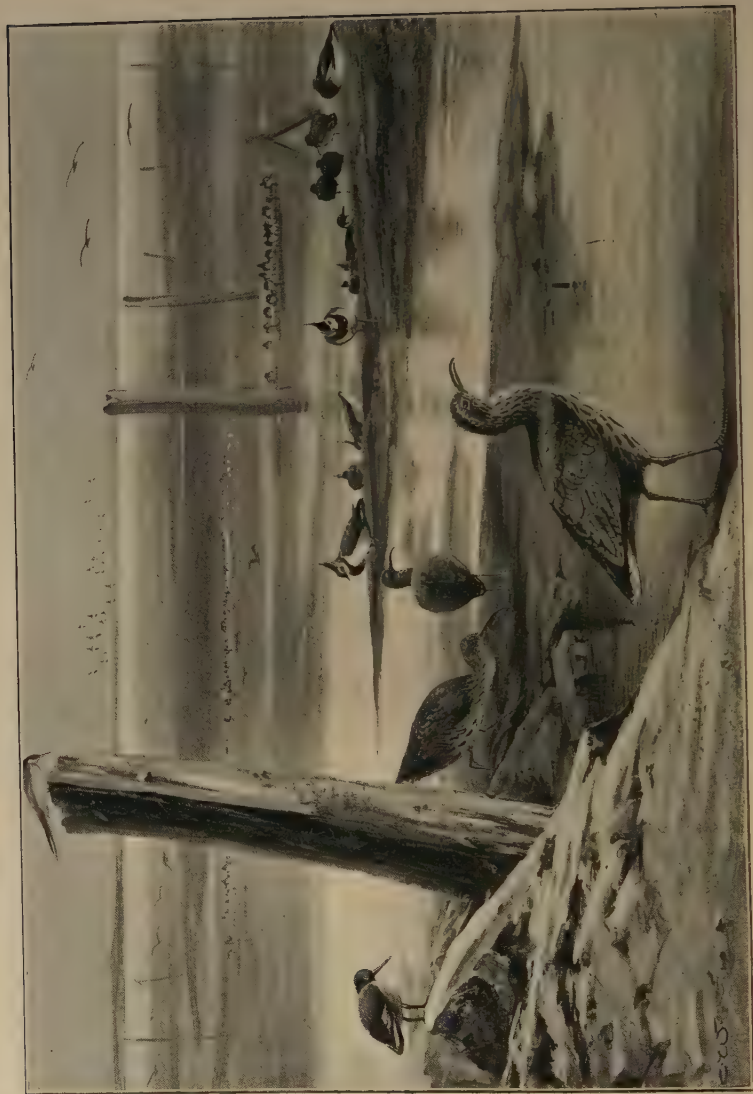


PLATE X.—“THE GATHERING OF THE CLANS.” A TYPICAL BIRD SCENE ON THE WASH IN AUTUMN.

Of all places in the world mudflats are the least interesting to the ornithologist in summer time. An odd **Gull** or two, possibly a **Heron** or a stray **Sandpiper** of some species, practically exhausts their bird life at that season; but in autumn what changes are wrought, the dreary monotonous expanses gradually filling up with a bird population of exceeding abundance and diversity. These wide muds and oozy sands indicate shoal water, a sandy or muddy bottom, a shallow sea, and plenty of grass wrack, and other food. These wide level reaches are exposed for miles between the tides, and each recurring tide brings in and leaves a multitude of creatures which form the favourite fare of the shore bird in winter; then they offer safe retreats (being inaccessible to man in many places) to vast hordes of shy and wary fowl that feed elsewhere and come here to rest. A visit is best paid to these haunts from October onwards, although as early as August the first signs of the coming birds are apparent, such species as **Dunlins** and **Common Sandpipers**, **Red-shanks**, and so forth, arriving in small numbers. Towards the end of October, about the time of the Woodcock's passage, numbers of **Short-eared Owls** migrate across the muds on the eastern sea-board. Longshore-men call it the "Woodcock Owl," and flocks arrive and scatter over the turnip fields and sea banks, coming across the sea in the night like the Woodcock does itself. I have seen numbers of these poor Owls caught in a single night in the flight-nets that used to be spread on the mudflats of the Wash in autumn to catch Wading birds of all kinds. The **Woodcock** was never caught thus. It flies high over the sea and drops perpendicularly into cover when its flight is done, but the Owl migrates just above the waves, at all events when nearing land, and blunders in the darkness into the nets. Of course it is impossible here to describe in detail all the rare **Waders**, **Ducks**, and **Geese** that visit these places regularly every year, either in going to or returning from breeding places in the arctic regions, but we may select the commonest and most familiar species. None of them breed in our islands, so their habits in summer, as well as their nuptial plumage, will require but trifling notice. Many **Gulls** also assemble on these muds in autumn and winter, but they may best be

described in their breeding homes in the following chapter.

Even as early as August **Knots** (*Tringa canutus*) appear upon the British mudflats, some of them young ones with particles of down adhering to their feathers! The Knot is congeneric with the Dunlin (conf. p. 112), and is a common visitor to our coasts, most abundant on the low-lying shores of East Anglia. In its winter dress the plumage is ashy grey above, white below, with dusky streaks and marks on the neck and flanks. As the dress in summer is so different, I ought to mention that the upper parts are then black and chestnut, the lower parts chestnut red. Knots arrive in flocks and, at first, are by no means shy, but they soon become warier and spend their lives feeding and flying about the muds. They run to and fro with short, quick steps, the flocks keeping well together whilst searching for food, heads all turned in the same direction, and are constantly on the move. Dunlins and Sanderlings frequently consort with them. Their food consists of sand-worms, crustaceans, mollusks, and other small marine creatures. They are remarkably silent birds in winter, but are said to utter a Curlew-like note at their breeding places. The eggs of the Knot have never yet been taken by civilised man, and the bird breeds in abundance in the highest arctic latitudes where land occurs. Closely allied to the Knot, and with almost precisely similar changes of plumage, we may here mention the **Curlew Sandpiper** (*Tringa subarquata*). It is known as the "Pigmy Curlew" in many localities, because its bill is considerably decurved towards the tip. It is best known as passing along our flat coasts in autumn and spring, but some few remain with us through the winter. This little Sandpiper in winter plumage might easily be mistaken for a Dunlin, but may at all times be distinguished from that bird by its white upper tail coverts. The Dunlin's underparts in summer, as already described, are black; those of the Curlew Sandpiper are chestnut red. In winter plumage the upper parts are brownish grey, each feather with a dusky centre, the sides and front of the neck and a portion of the breast are greyish white, streaked with dusky grey, the remainder of the underparts white. Its habits on the muds call for no special comment. It is only within recent years that the eggs of this Sandpiper

(four in number) were obtained for the first time. They were found in Arctic Siberia, and resemble those of the Common Snipe in colour. This Sandpiper arrives from the north in September, and leaves in April. Vast flocks of Dunlins also assemble on the mudflats in autumn, and continue there through the winter. Their aerial evolutions at times are most interesting, but these I have already mentioned (conf. p. 19). The food and habits generally of this species, when in the present haunt, resemble those of allied birds. Mixed with the flocks of Dunlins and Knots, another species congeneric with them, the **Purple Sandpiper** (*Tringa maritima*), may frequently be observed. It is locally distributed on all parts of the British coasts suited to its requirements between September and May. In winter plumage the upper parts are glossy purplish black, each feather margined with pale grey; the head, cheeks, sides, and fore part of the neck are pale purplish grey, the flanks and under tail coverts are marked with the same colour; the throat, part of the breast and abdomen are white. Although often enough observed on a flat muddy coast this species also resorts to rocky shores, places where the beach is composed of plenty of shelving rocks even at high water. This species not only swims well, but also occasionally settles on the sea when flushed. It obtains much of its food as the tide surges and recedes over the rocks. It utters a shrill *tee-wit* as it rises, and flies in a rapid way along the coast. It is a sociable species enough, but seldom or never congregates in flocks of its own kind. It breeds in the arctic regions, and the four eggs are pale olive or buff, richly marked with dark blackish brown, paler brown, and grey. The nest is seldom or never made far from the sea. Another associate with Dunlins, and more especially Ringed Plovers, is the **Sanderling** (*Calidris arenaria*). This little bird, the sole member of its genus, owes its distinction from the Typical Sandpipers to the facts that its metatarsus and culmen are about equal in length, and that it has no hind toe. It is most abundant on our coasts during passage in autumn and spring, but a considerable number remain behind to pass the winter, especially on the shores of the English Channel. The general colour of the upper parts is light grey; each feather has a paler margin and a dark shaft streak; the underparts are white;

the brown wings are crossed with a white bar; and the two centre tail feathers are brown. Its habits on the coast are precisely similar to those of the species with which it consorts. It breeds in the highest arctic regions of both hemispheres in June, and the four eggs are yellowish olive, mottled and spotted with olive brown and grey. It is a shore-loving species, and breeds close to the sea.

Far out on the open expanses of the mud, free from any possible ambushade, **Curlews**, **Oystercatchers**, and **Plovers** are assembled, but it requires all the power of our prism binocular to identify them. We last saw the Curlew on the upland moors, noisy and wary enough then, but even more so now; whilst the Oystercatcher has deserted its rocky beaches and shingles where we found its eggs, and is here for a change of diet, probably after the cockles and shrimps that are swarming out there where mud, sand, sea, and sky seem to merge into one long line of indistinctness, broken here and there by flecks of foam, as the sluggish waves break and turn over in the shallows. Curiosity prompts us to visit the far confines of these vast mudflats of the Lincolnshire Wash; but they are slimy, treacherous places, scored in all directions by wide streams and deep ditches and furrows, which are too wide to jump and too deep to wade; so we must use caution, be careful of our bearings and landmarks, or get into serious trouble with the mud that seems to have no bottom, and the tide that comes in with silent treacherous cunning, filling all the hollows and channels long before it is visible on the flat surface. The **Hooded Crow** (*Corvus cornix*) is the commonest land bird here; but only found in autumn and winter as a migrant from the Continent opposite. It is congeneric with the Carrion Crow (in fact freely interbreeding with it) and the Rook (conf. p. 55), and is only known to breed very occasionally in England, where it is a winter visitor. It breeds freely in Ireland, but is commonest in Scotland, especially throughout the Highlands. The adult Hooded Crow has the head, throat, upper part of the breast, the thighs, the wings, and the tail black, the rest of the plumage ash grey, many of the feathers with dark shaft lines. Parties of these birds begin to appear on the Lincolnshire mudflats about the middle

of October, and for quite a month the numbers increase. They seem to migrate by day, and their straggling flocks form one of the pleasantest features in the avine life of the coast, together with the hordes of Sky Larks that are crossing the sea into England at the same time. The Hooded Crow obtains much of its food (grass, corn, and herbage) on the newly-sown grain lands adjacent to the coast, but its favourite hunting grounds are the mudflats, on which it picks up a great variety of objects, such as cockles, tiny crabs, sand-worms, and any wounded or weakly bird that it comes across. In Scotland, where it is most cordially detested, its depredations on eggs, poultry, game, and produce of all kinds are serious enough, and no wonder the keeper, the farmer, and the crofter, too often send their curses after it and shoot, trap, and poison it at every opportunity. It breeds in Scotland in April and May. The nest may be built on trees or cliffs, on buildings or even on the ground amongst heath, and is a large structure made of sticks lined with such soft materials as wool, hair, feathers, and moss. The three to six eggs are green in ground colour, marked with olive brown, dark and pale brown, and grey, precisely similar to those of allied species. The note of this species is a hoarse *craa*, at times a chuckling *craa-uck ka-ruck*. It leaves the mudflats in March or early April.

But now to continue our journey across the muds. From some of the dykes and streams we shall occasionally start a **Bar-tailed Godwit** (*Limosa rufa*). This bird introduces us to another type of Wader belonging to the



BILL OF GODWIT (*Limosa*).

semi-web-footed group *Totaniinae* (conf. p. 108). The Godwits (*Limosa*) are closely allied to the Redshank section (*Totanus*), but present anatomical peculiarities; besides having a long upcurved bill and a long metatarsus scutel-

lated in front, the frontal feathers do not extend beyond the gape. They have long wings and a short, nearly square tail of twelve feathers. The genus, containing some half-dozen species, is a very widely distributed one. The Bar-tailed Godwit is a common bird on the British coasts suited to its needs during spring and autumn migration, and a fair number remain to winter. In winter plumage the adult has the head and neck pale grey with darker streaks, and a pale line over the eye; the front part of the back and the scapulars are grey, streaked with brown, the hind part of the back and the entire underparts are white; the tail is nearly uniform ash brown at this season. This is another species in which the underparts become reddish chestnut in summer. The Bar-tailed Godwit, when not



TOE SHOWING MARGINAL MEMBRANE
(*Limosa*).

in flocks, is rather a tame bird, but when in companies is wary and shy enough. When disturbed they fly off in a very Curlew-like manner, and may readily be recognised by their oft-repeated whistling notes of *kyǎ-kyǎ-kyǎ*. On the mud these birds usually progress by walking in a rather sedate and stately way, but they can run quickly when necessary. They probe the mud for much of their food, which consists of sand-worms, small mollusks, crustaceans, and minute jelly-fish. It breeds in the arctic regions, laying four eggs in a slight hollow on the ground. They are olive green, spotted and blotched with darker brown and grey. Most of the flocks of **Whimbrels** (*Numenius phaeopus*) have passed south by the middle of October, but we may find a few individuals still here on the mudflats, where some will remain through the winter. The Whimbrel is congeneric with the Curlew (conf. p. 108), but, unlike that bird, does not breed on any part of the British mainland, only locally in the Hebrides and the Orkneys and in greater numbers on the Shetlands (conf. p. 116). As in the Curlew, which this bird much resembles, there is little difference between summer and winter plumage. The adult has a conspicuous pale line down the centre of the dark-brown crown, and two lateral bands of a similar hue round the latter—features which readily distinguish the Whimbrel from the Curlew. The upper parts are greyer than those of the Curlew, and the

dark markings are not so distinct; there is the same white lower back and rump, but the tail is pale brown barred with darker brown; the chin, lower breast, and abdomen are white, the upper breast with dusky streaks, and the flanks and under wing coverts barred with brown. Their habits on the mud are very similar to those of allied birds, and they subsist on much the same kind of food. In Scotland the Whimbrel breeds in May and June, its favourite nesting places being the wild elevated moorlands at no great distance from the sea, over which it scatters in pairs for the purpose. A scantily-lined hollow in the ground is the receptacle for the four pear-shaped eggs, green or buff in ground colour, marked with olive brown, reddish brown, and grey.

Both Golden Plovers and Lapwings frequent these mudflats after leaving their inland breeding places, where we have already met with them (conf. pp. 95, 107). They are also joined here by the **Grey Plover** (*Squatarola helvetica*), a bird that is exclusively confined to the arctic regions during summer. This bird very closely resembles the Golden Plover, but has been generically separated from it on slight structural grounds. It has a small hind toe. The upper plumage is never spangled with brazen spots, being a mottled mixture of black and white, but the underparts become black at that season, as is the case with the Golden Plover. It is most abundant on our shores during spring and autumn migration, but a considerable number remain to winter on suitable parts of the coast. In winter plumage the Grey Plover has the upper parts dark brownish grey, spotted and marked with white, the sides of the head, the neck, the breast, and the flanks are streaked with brown, the remaining underparts are white. This bird is not so gregarious as the Golden Plover or the Lapwing, and is usually met with in small parties, singly, or attached to a flock of Knots, or other Waders. It breeds on the arctic tundras, making a slight nest on the ground, and laying four eggs, very closely resembling those of the Lapwing. Companies of **Little Stints** (*Limonites minuta*) frequently haunt these mud-



BILL OF GREY PLOVER.

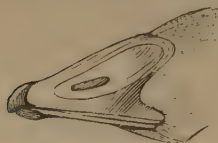
flats of East Anglia. This species is one of the cleft-footed Sandpipers (*Scolopacinae*) (conf. p. 110), its generic characters being the equal length of the culmen and the metatarsus, the latter being about the same length as the middle toe and claw; the hind toe is present. Some five species of these Stints are known, ranking amongst the smallest of the entire family; they are, according to season, almost cosmopolitan. The Little Stint is found in greatest numbers on our coasts during the autumn migration, less frequently in spring; and does not appear ever normally to remain over the winter. In winter plumage this Stint has the upper parts brownish grey with dusky streaks; the underparts are white. Its habits on the mudflats call for no special comment. It breeds in June far away in the arctic tundras, making a slight nest on the ground, and laying four pyriform eggs, which are greenish grey or pale brown, blotched and spotted with reddish brown, paler brown and grey. It is very tame and confiding at the nest.

These mudflats and vast wastes of sand and ooze are also the favourite haunts of various kinds of Geese and Ducks. Of the Geese (*Anserinae*) (conf. p. 115), as we have already seen, but one species breeds in our area, all the others are more or less common winter visitors only. Three of them are congeneric with the Grey-lag Goose (conf. p. 115), the most abundant and widely dispersed being, perhaps, the **Bean Goose** (*Anser segetum*). Great numbers of this species winter in the British Islands, frequenting the coasts of Scotland especially, and in England, chiefly the southern and western littoral districts. This species has the head and neck greyish brown, the feathers on the latter disposed in prominent ridges; the general colour of the upper parts is dark brown and grey, darkest on the rump, most of the feathers on the fore part having pale margins; the underparts are brownish grey, shading into white towards the tail. This Goose may always be distinguished from the other British species by having the central portion of the bill orange yellow, black at the base and on the nail, and by the orange-yellow legs and feet. The **Pink-footed Goose** (*Anser brachyrhynchus*) is found most commonly on our eastern coast-line, locally on the west coast, and the south coast of England. It does not visit Ireland. This species very closely resembles the

Bean Goose in general coloration, but may be distinguished from it by having the central portion of the bill pink in most cases (but occasionally coloured like that of the preceding Goose), and the legs and feet flesh colour. The **White-fronted Goose** (*Anser albifrons*) is a scarcer and more local bird, but sometimes appears in certain localities in large numbers. Small numbers frequent the east and west coasts of Scotland, especially the Hebrides; it is rare on the east coast of England, commoner in the south and south-west, and is most abundant of all round the Irish coasts. The adult has the forehead white, with a black band behind, the head and neck greyish brown, the feathers of the latter disposed in ridges; the rest of the upper parts brownish grey, with paler margins to the feathers, and shading into deep grey on the lower back; the underparts are greyish white, mottled with brownish black on the breast. This Goose has an orange-yellow bill with a white nail, and orange-yellow legs and feet; the varying amount of white feathers at the base of the upper mandible is very characteristic. These Geese are all more or less gregarious during autumn and winter, and wander much about the country. They chiefly frequent the coast during night time, sleeping and resting on sandbanks and mudflats, or even on the sea, coming inland at dawn to feed on stubbles, newly-sown grain lands and pastures. They are all good fliers and swim well, but do not dive. Their notes are of the familiar *gag*-ing nature. They feed chiefly upon grain and grass. They are monogamous, make bulky nests on the ground, warmly lined with down, and their numerous eggs are white or cream-coloured.

The **Bernacle Geese**, or **Black Geese** (*Branta*) are, however, maritime in their habits. Two species are fairly common winter visitors to the British coasts. The Black Geese are characterised by their short sub-conical bills, much shorter than the head, and the inner edge of the mandibles is nearly straight, the lamellæ concealed. The strongly contrasted colours of the plumage are also very characteristic. Of the two British species the **Brent Goose** (*Branta bernicla*) is certainly the more abundant, being found on all parts of our coasts suited to its requirements. In the adult Brent Goose the head, neck, and upper breast are glossy black, the sides of the upper part

of the neck having a white patch marked with black; the rest of the upper parts are slate grey, except the wings and tail, which are black, and the sides of the rump and the upper tail coverts, which are white; the underparts below the breast to the vent are brownish grey marked with white on the flanks in the typical form, but nearly white, barred with brown on the flanks in the form found

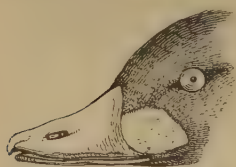


BILL OF BRANTA.

in America, which is apparently distinct. Birds with nearly white underparts occur in small numbers on the British coasts. This species bears the name *Branta glaucogaster*. Vast flocks of Brent Geese assemble on the mudflats, where they are extremely wary and shy. Their noisy clanging cries of *hank* or *honk* sound far and wide across the muds, and with our glasses we can see that the masses are almost constantly in motion, birds flying up and birds settling down continually; as we approach them the great horde, covering it may be many acres of mud, rises in a broken manner giving one the idea that the whole ground is upheaving, and eventually the birds fly out to sea. The birds settle on the muds to feed, chiefly upon the grass wrack (*Zostera marina*), and laver (*Ulva latissima*), tearing these plants up and eating them. As the tide once more flows over these wide marine pastures the Geese retire out to sea and await the ebb. They are for the most part day feeders, but the state of the tide has of course a good deal to do with their dinner hour. This Goose breeds in high polar latitudes, making its nest at no great distance from the sea, warmly lining it with down; the four or five eggs are creamy white. The **Bernacle Goose** (*Branta leucopsis*) is somewhat scarce on all our eastern and southern coasts, becoming commoner along the western ones, from Cornwall northwards to the Hebrides, including the eastern and northern coasts of Ireland. It is a larger bird than the Brent Goose. The fore part and sides of the head and the throat are white; the hind part of the head and the neck are glossy black, as are also the upper breast and the upper and lower back; the centre of the back, the scapulars and wing coverts are ashy grey barred with black, the sides of the rump and the upper tail coverts are white. The quills and tail are nearly black. The underparts

below the breast are white, barred faintly with grey on the sides. The white face is a ready means of identifying this Goose. Wild Swans are from time to time seen off our estuaries as well as at sea near more rocky coasts, and on many large inland lakes. They are both congeneric with the Mute Swan previously described (conf. p. 204). The **Whooper Swan** (*Cygnus musicus*) arrives off our coasts in late autumn and departs northwards again in April. In severe weather it frequently visits lakes and rivers. It is most numerous in Scotland, although seen on and off other parts of the British coasts in fair numbers if somewhat irregularly. Its plumage is pure white. It spends most of its time on the water, but never looks so graceful as the Mute Swan, carrying its long neck nearly straight. It is gregarious, feeding and flying in flocks, the latter often assuming a wedge-like form. It feeds chiefly on grass, roots, stems of various plants, buds, seeds, and to a smaller extent on insects and mollusks. The great breeding grounds of the Whooper Swan are beyond the arctic circle, on islands in deltas of the northern rivers or by the side of lakes on the lonely tundras. The bird pairs for life, makes a huge nest on the ground, and lays from two to five creamy-white eggs. The note of this Swan is a short, clear, and very loud trumpet-blast, sounded several times in succession. **Bewick's Swan** (*Cygnus bewicki*) is an equally numerous visitor to the British seas and coasts, most abundant, however, on the west of Scotland and the lakes and western coasts of Ireland. It sometimes visits small inland sheets of water, but not as a rule in such vast flocks as are sometimes seen to congregate elsewhere. Its plumage is pure white. The difference between these two Swans is as follows. The Whooper Swan is much the bigger bird; besides which the lores and the basal portion of the bill extending below the nostrils are yellow, the remainder black; in Bewick's Swan the yellow on the base of the bill does not extend below the nostrils. Its note also is not so loud, a short musical *tong*; it is even more gregarious than its larger ally, sometimes associating in thousands on a favourite spot. It is more given to frequenting fresh water than the Whooper Swan, and seems to feed more on the land. Otherwise its habits are similar. It breeds in the arctic regions, the three eggs being smaller and whiter than those of the preceding species.

Ducks of many species assemble on these flat coasts in autumn and winter. We have already alluded to many of these (conf. p. 194), among the most maritime being the **Wigeon**, the **Pochard**, and the **Tufted Duck**, but a few others now require special notice. Vast flocks of **Scoters** are common, and the **Tufted Duck** in similar gatherings is a regular winter visitor to the British coasts. Indeed all the species previously named, with one or two exceptions, are far more widely distributed and very much more abundant in winter than they are in summer. The **Scaup** (*Fuligula marila*), congeneric with the **Tufted Duck** (conf. p. 199), is one of those Ducks that is common enough in winter, but never breeds in our area. This Duck has the speculum white. The drake has the head, neck, upper breast, rump, and under tail coverts black, glossed with green; the back scapulars and wing coverts are greyish white, finely vermiculated with black; the abdomen is white. The duck is brown in all parts where the drake is black, and has a broad white band on the forehead. The eight or nine eggs are pale greenish grey. The pretty **Golden-eye** (*Clangula clangula*), when driven from inland fresh waters by severe weather often resorts by preference to low coasts and flat estuaries. Two species only are contained in this genus. The Golden-eyes are diving Ducks (*Fuligulina*) (conf. p. 198), and are characterised by having the primaries uniform in colour, the head well crested, the bill stout, the edges of the upper mandible not bent inwardly, the outer and middle toes of equal length, and the tail short, less than twice the length of the metatarsus. They are found in the northern parts of Europe, Asia, and America. The British Golden-eye is a common winter visitor to the coasts and inland waters of the British Islands. The speculum is white. The drake has a glossy green head and neck and a small white spot at the base of the bill. The duck has the head and neck greyish brown and no white spot near the bill. This species is exceptionally interesting, because it breeds in holes in trees, and the ten or a dozen eggs are bright greyish green. Lastly, we may mention the **Velvet Scoter** (*Edemia fusca*), congeneric with the Common Scoter



BILL OF GOLDEN-EYE
(*Clangula*).

(conf. p. 199), but much less numerous as a winter visitor, although frequently consorting with it. Unlike that bird, however, it has a white speculum. The drake is glossy black, save for the white wing speculum and a white patch below the eye; the duck is uniform brown, but, of course, has the white speculum. The eight or nine eggs are pale greyish buff. The **Surf Scoter** (*Edemia perspicillata*) is a rare straggler only to our islands from North America during winter. As may be seen from the illustration, the bill differs considerably from that of the other Scoters, and the feathers on the forehead extend much further anteriorly than those on the lores. Various other and rare birds visit these mudflats and sands during autumn and winter, but all the commoner and characteristic species have now been mentioned. This haunt of bird life, between autumn and spring especially, is an exceptionally full one, and one that presents the added charm of expectancy, for one never knows what rare bird we may come across in exploring it. By the aid of a glass many very charming peeps at shy and interesting Wild Fowl may be obtained in such a haunt, some idea of its richness being conveyed in the drawing that was specially made to illustrate the sands and mudflats.



BILL OF SURF SCOTER
(*Edemia*).



Bird Stations: THE TRESNICH ISLANDS, HEBRIDES.



HAUNT X

SEA-LAVED ROCKS AND ISLETS

CONTENTS: The Rock Dove—Auks—The Guillemot—The Razorbill—The Puffin—The Rock Pipit—Terns—The Sandwich Tern—The Common Tern—The Arctic Tern—The Roseate Tern—The Lesser Black-backed Gull—The Herring Gull—The Great Black-backed Gull—The Kittiwake—The Cormorant—The Eider Duck—The King Eider—The Gannet—The Peregrine Falcon—The Red-breasted Merganser—The Common Gull—The Black Guillemot—The Shag—The Raven—The Chough—Petrels—The Fulmar—The Manx Shearwater—The Petrels—The Stormy Petrel—The Fork-tailed Petrel—The Turnstone—The Great Northern Diver.

THE present haunt is almost exclusively a northern one. It chiefly consists of those wild and lonely coasts and rock-bound islets laved by restless surge and ocean swell with which Scotland is so grandly bulwarked. Here in summer time bird life in great variety congregates, presenting scenes of rare and stirring interest. From one great bird station to another I propose to take the student, and, whilst trying to interest him with the panorama, seek to describe in detail all the species that regularly frequent them, or that are most intimately associated with them in summer.

If we continue our journey northwards from the Wash along the flat coasts of Lincolnshire, and past the wide estuary of the Humber, some distance beyond, running like a giant bulwark into the German Ocean, comes the famous Flamborough headlands. Various interesting birds make these mighty cliffs their haunt and rear their young upon them. The **Jackdaw** is very common, but we may pass it by, for we have already dealt with that species elsewhere. I mention it merely as furnishing an instance of a littoral breeding place. Here, however, we meet with the **Rock Dove** (*Columba livia*) for the first time. It is congeneric with the other Doves already mentioned (conf. p. 75). This species may be found breeding on most ranges

of marine cliffs throughout the British Islands, even including remote St. Kilda, from where the bird is said to visit the Hebrides, some fifty miles away, each day to feed! It resembles the Stock Dove in general appearance, but shows no trace of brown on the upper parts; the back and rump are white, and there are two very distinct and unbroken black bars across the wing—characters so very conspicuous during flight as to render identification easy. The sexes are almost alike in colour. This Dove, I should mention, is the original stock from which all domesticated races of dove-cote Pigeons have descended. It is a very shy, wild, and wary bird, and is gregarious throughout the year. Indeed, as likely as not, flocks of this species may be observed in the fields near the Flamborough headlands. Its habits and food closely resemble those of allied birds, except that it does not perch in trees, but roosts in the caves and fissures of the rocks, where it breeds. It rears several broods in the season, and eggs may be obtained at almost any date between April and September. It pairs for life, and resorts to the same nesting places annually. The scanty nest is made in caves by preference, on ledges, or in cracks and crevices: where a cave is not available, a fissure in the cliffs is selected. It is built of straws, twigs, roots, stalks of plants and grass, and is very flat. The two eggs are white. The note of this Dove is a full rich *coo-roo-coo*. The Rock Dove is a resident, but its numbers are increased in autumn by migrants.

These massive cliffs are a favourite breeding place of several common species of the Auk tribe (*Alciformes*). The birds in this order are more nearly allied possibly to the Gulls and the Divers than to any other existing species. They have long Diver-like bodies, short legs placed very far back, short and reticulated metatarsi, and the three anterior toes are united by webs and armed with sharp claws; the hind toe is either absent or rudimentary. The bill is variable in size and form, but is mostly powerful. The wings are short and narrow; the tail short, and composed of twelve feathers. The young are hatched covered with down, but do not, as a rule, take to the water until well grown, and are dependent upon the parent for some time after leaving the egg. The extinct **Great Auk** (*Alca impennis*) belonged to this order. Some thirty species are

known, all contained in the single family *Alcidæ*. Auks are inhabitants of the arctic and sub-arctic or temperate portions of the northern hemisphere. Perhaps the most abundant species on these Flamborough cliffs is the **Guillemot** (*Uria troile*). Several species or races are known, generically characterised by the shape of the bill, which is long, stout, straight, compressed and tapering, without grooves; the nostrils are concealed. This bird rarely visits the land except to breed. It spends the other portion of its life upon the sea, where it swims buoyantly, and dives with wonderful skill, being as active below the surface as a fish. The Guillemot is widely and abundantly distributed during the breeding season on the rocky coasts of the British Islands, its colonies, however, being most extensive in northern localities. In summer the upper parts are greyish black, the lower parts are white; the wings are margined and the secondaries tipped with white. In winter there is much more white on the head and neck. As summer approaches the Guillemites (which are social and gregarious at all times) gather at the old accustomed breeding places and remain in their vicinity until the young can leave them. As we approach the cliffs in a boat short strings of, say half-a-dozen or more, Guillemites may be seen flying swiftly along just above the water, others are dotted about the sea, swimming and diving, and as we come nearer to the towering wall of rock rows and rows of birds are noticed standing nearly erect on the shelves and ledges, in fact wherever there is room. If the student possesses the requisite nerve he may get himself lowered by a rope from the summit into the dizzy depths and make himself more familiar with the Guillemot's domestic arrangements, or rather want of them, for no provision is made for the egg or young. On the ledges, some distance from the top, he will find eggs strewn about in most tempting abundance lying on the rock face, often in spots where the least touch would apparently send them toppling over into the sea. As he approaches the old birds fly down to the sea with a whirr of rapid wing-beats; from all parts they literally pour off into the water below, other rock birds with them. The Guillemot lays a single big pear-shaped egg, but of such an infinite variety of colours that it is quite a hopeless

task to describe them—white, blue, brown, green, and so on, streaked, spotted, blotched, and marked in endless ways with browns, ochres, pinks, and greens in similarly bewildering perplexity. The Guillemots are practically silent during our visit. After the young leave the cliffs, the birds disperse with them over the sea, and for the rest of the year pass a nomadic sort of existence. Their food consists chiefly of small fishes and crustaceans. Here also in these cliffs large numbers of **Razorbills** (*Alca torda*) breed. The Razorbill is the sole surviving member of the genus (now that the Great Auk is gone). In this bird the bill is coultter-shaped, deep, laterally compressed, and obliquely furrowed on the sides, and with a transverse central white line. Otherwise the Razorbill bears a very close resemblance to the Guillemot. It may not be quite so abundant as that bird in any particular station, but it is very widely dispersed round the British coasts, and is most numerous in northern localities. In breeding plumage the adult has the head and upper part of the neck brownish-black, the remainder of the upper parts greenish-black; the underparts are white; there is a narrow white line from the bill to the eye, and the secondaries are marked with white on the margin. In winter the sides of the head and the throat are white. The habits of this bird are very similar to those of the Guillemot. Save during summer it may be found in varying numbers scattered over the seas round the British Islands following the shoals of fishes. As spring advances the birds begin to assemble at the old time breeding places on the cliffs. The Razorbill lays its single egg in a hole or fissure, not on the bare ledges and shelves. It is very variable in colour, but to nothing near the same extent as that of the Guillemot, from which it may always be distinguished by the clear pea-green tinge of the interior of the shell when held up to the light, whilst no shade of blue or green is ever displayed on the surface. The ground colour varies from white to reddish-brown; the blotches and spots are dark liver-brown, reddish-brown, grey, or greyish-brown. The Razorbill is an expert diver, and obtains most of its food under the surface, often at a considerable depth. It is composed of fishes and crustaceans. Young and old leave the cliffs together, and disperse over the seas as

autumn advances. Many Puffins breed in these cliffs, but we shall meet with this bird farther north in other haunts.

Continuing our journey north along the coast we shall eventually reach the Farne Islands, another world-famed breeding place of sea-fowl. The sea for miles around them is crowded with birds of various species. Here again are Guillemots in hundreds; now and then Cormorants are seen or a few drake Eiders; but perhaps the predominant species on the sea is the **Puffin** (*Fratercula arctica*). He is one of the Auk family mentioned above, and receives generic distinction chiefly on account of the formation of his curious bill. The Puffins have exposed nostrils, and a deep laterally compressed, short coulters-shaped bill, grooved and embossed with horny sheaths, and of bright orange, blue, and yellow tints. Some of these sheaths or horny processes are nuptial, assumed in spring and cast in autumn, as are also bony growths on the eyelids. In other respects the Puffins closely resemble the other Auks. From its grotesque facial expression the British Puffin has been nicknamed "Bottlenose," "Coulterneb," and "Sea-Parrot." It is a resident round the British coasts; during autumn and winter it is highly nomadic, but, like its kindred, assembles in spring at certain places on the coast and islets to breed. The throat and sides of the head are greyish white, the upper part of the head greyish black, the middle of the neck all round and all the upper parts are blue black, and the underparts are white. Its habits on the sea closely resemble those of the Guillemots and Razorbills, but its breeding habits are different. It prefers cliffs and islands where there is plenty of soil in which it can burrow, but also frequents rocks in which it finds a substitute for a burrow under the shelving masses and in all kinds of crevices and nooks. One of the Farne Islands is covered with a thick layer of black or brown peaty soil, and this is literally honeycombed with Puffins' burrows, as well as broken up into hollows and trenches where the tunnels have fallen in. At the Bass Rock numbers of Puffins breed in the holes of an old fortress. Few birds are more gregarious, especially during the breeding season, and a visit to their colony creates a memory that is lifelong. On the island here but few

Puffins are visible; they are mostly underground, and every tunnel we care to examine, probably in nine cases out of ten, contains a bird. When dragged out caution is necessary, for the indignant Puffin can bite and scratch and inflict nasty wounds with bill and claws. In some cases the Puffin annexes a hole, but usually makes one for itself, digging out the soft soil with its sharp claws and throwing it out behind as it works. The tunnels vary in



PUFFINS.

length up to perhaps a dozen feet, and at the end, on a little dry grass, a single egg is laid, greyish white, faintly spotted with rusty brown and grey. Its fresh tints soon become soiled, and some eggs are as brown as the peat itself. But of all the wonderful Puffin haunts that it has ever been my good fortune to visit, that on the island of Doon in the St. Kilda group is the most so. The numbers of birds are past all efforts at computation or belief, and when I landed such a crowd of Puffins swept down the

grassy slopes to the sea that it seemed as if the whole surface of the island were slipping away from under my feet.

We shall also find the Farne Islands a very suitable place to make the acquaintance of the **Rock Pipit** (*Anthus obscurus*), congeneric with other Pipits mentioned elsewhere (conf. p. 26). This bird is very closely associated with rocky coasts, and is found on all of these throughout the British Islands. It is the largest of the three indigenous Pipits. The adult, in breeding plumage, has the general colour of the upper parts olive brown, streaked with darker brown, except on the rump. There is a pale stripe over the eye, and the outermost tail feather has a long patch of grey on the inner web; the chin is white and the remainder of the underparts pale buff, suffused with rose on the breast, olive on the flanks, the latter and the breast being streaked with dark brown. It is a resident on the coast, and is never so gregarious as the Meadow Pipit, although many pairs may be found on quite a small stretch of rocks. It pairs early in spring, when the male is a most industrious singer, warbling in true Pipit style whilst on the wing, fluttering upwards a short distance, and then gliding down to the rocks with expanded wings and tail. His song is not so sweet or so continuous as that of the Tree Pipit, but is certainly equal if not superior to that of the Meadow Pipit. The call-note is a shrill *weet* or *peep*, plaintive and monotonous. It may often be seen on the high cliffs as well as on all parts of the beach, especially at low water, where it obtains most of its food, which consists of insects, small mollusks, and seeds. This Pipit is by no means a shy bird, and often remains sitting on the rocks, uttering its complaining call-note as we pass by within a few yards of it. Then mayhap it starts up in an uncertain, uneven way, flits off to another rock to wait and call as before. It runs very nimbly, and at times will take refuge in any nook amongst the rocks. Its breeding season continues from April to July, two broods being reared. It builds its nest in some sheltered spot, under a rock or loose stone, in a crevice of the cliffs high up where rock birds are breeding, or amongst patches of sea campion and sea pinks. It is made of dry grass, bits of seaweed and moss, and lined with finer grass, and horsehair when-

ever it can obtain it. In St. Kilda I noticed that horse-hair was taken from the Puffin snares set on the cliffs. The four or five eggs are pale greenish, or brownish, grey, marked with olive brown or reddish brown and pale brown.

The visitor to the Farne Islands will find that each of the islands are more or less annexed by a certain species. On one island, for instance, Terns predominate, on another Cormorants, on a third Puffins, on a fourth Black-backed Gulls, and so on. We will therefore next pay a short visit to the islands where Terns are specially breeding. Three species are more or less abundant, and all are congeneric with the Lesser Tern, which we met with breeding on the sandy coasts (conf. p. 207). The largest of these is the beautiful **Sandwich Tern** (*Sterna cantiaca*). Its most important breeding station in the British Islands is at the Farnes, but smaller colonies occur on Walney Island, at Ravenglass in Cumberland, in the Solway District, on Loch Lomond, in the Firth of Tay, and on the coast of Elgin. In Ireland it has a colony in County Mayo some distance from the sea. The adult in breeding plumage has the upper part of the head and the nape deep black; the prevailing colour of the upper parts is slate grey on the back and wings, nearly white on the neck, rump, upper tail coverts and forked tail; the darker wings are marked with white; the underparts are white suffused with a rosy tinge; the bill is black tipped with yellow. The Sandwich Tern reaches its British haunts in April and May; breeding operations are in full swing in June. It is gregarious, like most of its kindred, returning to the same places each season to breed, but from time to time changing the exact spot in them. It makes but a scanty nest on the ground, amongst the short grass and campion, on bare elevated ground some distance from the water, or on the sand and shingle on the beach amongst débris washed up by spring tides and wintry gales. In many cases a nest is even dispensed with, and the pretty eggs strew the ground in all directions so closely that we must pick our steps with care or, as the old saying has it, "put our foot in it" to some purpose. These eggs are usually two, sometimes three, and present a vast amount of variation. The ground colour ranges from white to buff, spotted and blotched with dark brown, orange brown, and inky grey.

Sometimes a high spring tide will devastate the entire colony, and then the poor birds remove to another spot and lay again. As the breeding place is approached the Terns in crowds rise fluttering into the air, uttering their shrill notes and hover above the place until left in peace. The return south begins in August and continues through September. On another of these rocky islets Common Terns and Arctic Terns have established their colonies. The **Common Tern** (*Sterna hirundo*) is another abundant species on the Farnes, but becomes rarer as we proceed northwards, where it is to a great extent replaced by the Arctic Tern. It has many other breeding places round the British coasts, and in Ireland is certainly the predominant species. It is much smaller than the Sandwich Tern, but resembles that species closely in general coloration; the underparts, however, are strongly suffused with grey, especially on the breast; the bill is orange red, with a black tip. It arrives about the same time, and is just as gregarious, although the colonies vary a good deal in extent, owing to a variety of local causes. So far as my own observations extend, the Common Tern does not breed quite so close to the water as other species, choosing some spot amongst campion or grass, less frequently where the ground is bare of herbage. The nest is a slight hollow lined with a few bits of dry vegetation, and the two or three eggs are buff or greyish brown, marked with dark brown, yellowish brown and grey. The Common Tern is just as anxious as its allies when the breeding place is disturbed, hovering and screaming in its excitement. The **Arctic Tern** (*Sterna arctica*), as previously noted, becomes most abundant in the northern districts. Besides the Farne Islands it has small colonies at Spurn, but nowhere else until we reach the Scilly Islands. A few breed on the coast of Wales, but in Scotland it is found in greater numbers in all suitable spots to the Shetlands. In Ireland it is chiefly found on the west coast. It resembles the last in general colour, but is slightly smaller, the underparts are darker grey, the metatarsus is shorter (about half an inch in length), and there is more white on the inner webs of the primaries; the bill is coral red. It arrives about the same time at its breeding stations, is perhaps even more gre-

gamous, and, like the Sandwich Tern, often changes the precise site of its nesting place in any given locality. The eggs are generally laid near to the water, on coarse sand or shingle, on the line of drift, or amongst pebbles thickly strewing the beach and bare rock surface. The two or three eggs vary a good deal in colour, ranging from buff to olive, or even pale bluish green, handsomely marked with dark and pale brown and grey. Its actions at the breeding place resemble those of allied species. All these Terns pass most of their existence on the wing, and are therefore not inaptly named "Sea Swallows." They feed chiefly upon small fishes, which they capture by dropping down and plunging for a moment in the water. There are few prettier sights along these wild northern shores than a flock of Terns fishing. They persistently follow the shoals of fry, one bird after another plunging down like a glittering piece of white stone, with a splash that may be heard for a long distance across the quiet water. Sometimes the bird after plunging remains swimming on the sea for a little time, but usually it rises at once and joins the fluttering noisy throngs above, which are incessantly buffeting and chasing each other, apparently more for amusement than anything else. Passing mention might be made of that rare and local species the **Roseate Tern** (*Sterna dougalli*), which formerly bred in many spots round the coast, and still does so in one or two favoured localities. Its habits are similar to those of its congeners, from which it may readily be distinguished by its more acutely forked tail, and the pronounced roseate hue of its under surface; the bill is black, red at the base.

On yet another of the Farne Islands we shall find what is perhaps the most important breeding station in the British Islands of the **Lesser Black-backed Gull** (*Larus fuscus*). This species is congeneric with the Black-headed Gull (conf. p. 205), but belongs to a section of the genus containing larger and unmasked Gulls. They are birds with a perfectly white tail, and the young have a striated head. The Lesser Black-backed Gull breeds in many parts of the British Islands, but nowhere in England south of the Farne Islands or east of Devonshire. It is very local in Ireland, and only breeds in one or two localities. This fine Gull, called by some the "Yellow-footed

Gull," has the back and wings very dark slate grey, the quills tipped with white, the head and hind neck and the remainder of the underparts white; the bill is pale orange, with a touch of vermilion on the lower mandible, the legs and feet yellow. It is resident in our islands, and breeds on rocky coasts and islets, also on islands in inland lakes, and on mosses and flows. It is gregarious,



NEST OF LESSER BLACK-BACKED GULL.

especially in summer, and breeds in the same place yearly. Its eggs are laid in May and June. The Farne Islands might almost be regarded as one huge colony of Black-backed Gulls, with one central station. Here, as we approach, we see the island dotted all over with birds standing on the rocks and hillocks and the bare ground, and much noisy commotion commences as we set foot on shore. The

Gulls now rise in clouds, and the babel of *yak-ing* notes increases as the frightened birds fly to and fro. Gulls' nests are to be seen everywhere—amongst the grass and campion, in the hollows of the rocks, and on ledges of the low jutting cliffs that rise a few feet higher than the general level of the island itself. Some of these nests are large and substantial structures, made of stalks and leaves of marine plants, seaweed and turf, and lined with half dry grass; others are mere hollows, with a few straws and grass tufts arranged as a lining. Droppings cover the rocks like whitewash, and feathers are everywhere. The three, rarely four, eggs vary very much in colour. The ground colour may be some shade of green, olive, brown, buff, or grey, while the spots and blotches vary from dark liver brown to pale brown and grey. A few **Herring Gulls** (*Larus argentatus*) also breed at the Farne Islands. This Gull is nowhere so gregarious as the preceding species, possibly because it is not so fastidious in its choice of a haunt, and is therefore more scattered about the coast during the breeding season. The largest colony known to me is in South Devon, on the coast between Berry Head and Dartmouth. It is very widely dispersed over the British Islands (certainly the most abundant of the larger Gulls), and breeds in all suitable localities, not only on rocky coasts, but in many inland places, as for instance at Foulshaw Moss, in Westmorland, and on islands in various freshwater lochs. This Gull is a little larger than the Lesser Black-backed Gull, and the grey upper parts are many shades paler; the colour of the bill is the same in the two species; but the legs and feet of the Herring Gull are flesh-coloured. The habits of this species are very similar to those of other Gulls. The nests are in most cases slight, consisting of hollows in the ground or cliff ledges, more or less lined with dry grass, turf, and straw; in some cases not even this provision is made for the eggs. These are two or three in number, presenting much the same range of colour variation as those of the preceding species, but are larger, and the markings are more inclined to take the form of *spots* instead of blotches. The Herring Gull is just as noisy at its nesting places as other Gulls, its oft-repeated *hak-ak-ak* sounding with irritating persistency. The **Great Black-backed Gull**

(*Larus marinus*) does not breed at the Farne Islands, nor indeed anywhere on the east coast of England, and only sparingly on the south and west (including the Scilly Isles, Lundy Island and on the Welsh coast). It is commoner in Ireland and in Scotland, especially in the Hebrides and north to the Shetlands. It is by far the largest of the British Gulls, resembles the Lesser Black-backed Gull in



NEST OF GREAT BLACK-BACKED GULL.

colour, having the same very dark slate grey mantle, perhaps even darker, but the legs and feet are flesh colour, like those of the Herring Gull, although the bill is the same in tint. Nowhere is this Gull so common, and nowhere does it breed in colonies of anything like the extent of its smaller ally. It breeds in scattered pairs in most suitable spots round the coast as well as on islands in fresh-

water lochs at some distance from the sea. Year by year it resorts to the same places to breed, the eggs being laid in May or early in June. It prefers an isolated rock stack, or a ledge on some beetling cliff, but when on an island it is not averse to the ground. The nest resembles that of the preceding species, and is often slight in the extreme. The two or three eggs range from greyish brown to olive brown, spotted with dark amber brown and grey. As usual the bird becomes bold and clamorous when disturbed. Both the cliffs at Flamborough and the sides of the huge rock stacks at the Farnes, called the "Pinnacles," are a favourite resort of the **Kittiwake** (*Rissa tridactyla*). The Kittiwakes are very closely allied to the Typical Gulls, but have been separated generically from them because the hind toe is wanting, or is only rudimentary, and the tail is slightly forked. But two species are known. During the breeding season the Kittiwake is closely confined to the rock-bound coasts, and is consequently an abundant bird in many parts of Scotland, also in Ireland. It is not found breeding on the east coast of England south of Flamborough, and only on the coasts of Devon and Cornwall on the south coast. It is a larger bird than the Black-headed Gull, but a little smaller than the Common Gull (shortly to be noticed). In summer plumage the head, neck, and all the underparts are white, the back and wings pale bluish grey; the primaries have broad black tips, and the entire outer web of the first is black: the bill is pale greenish yellow, legs and feet dark brown. In winter the crown and ear coverts are streaked with dark grey, and the back of the neck is pale grey. The Kittiwake is certainly the most thoroughly marine of all the British Gulls, and one of the most gregarious, assembling in crowds to breed on the most inaccessible cliffs—where in some places every available ledge and prominence is crowded with nests. Its eggs are laid in May and June, and the cliffs are deserted as soon as the young can leave the nests. In many cases the old nests are used year by year. These are much better and more elaborately made than those of the other species, and are placed at various heights from the sea. The outer materials consist of turf and roots, the earth adhering to which together with the droppings from the birds being caked and worked together into a mortar-

like mass. Upon this foundation a further nest of dry seaweed and stalks is formed, which is finally lined with dry grass and a few feathers. The two or three eggs vary from blue-green or olive to buff and brown, marked with reddish brown, paler brown, and grey. There are no noisier Gulls at the nest than Kittiwakes, their harsh cries of *kitti-aa, kitti-aa*, which the intruding ornithologist can freely translate into *ah get-away*, pouring forth in a torrent of protest throughout our stay. Far down the wet cliffs we can see the pretty birds standing or sitting on their nests quite out of reach, and the scene is still more enlivened by the numbers that wheel and flutter in the air before the face of the sea-laved rocks. Whilst at the Pinnacles, by the way, we must not fail to examine the table-like tops of these curious rocks, for they are crowded as thickly as they can be packed with **Guillemots**, and present a scene in bird life absolutely unequalled in any other part of England.

Before leaving the Farne Islands a brief visit must be paid to an outlying reef which is a famous breeding station of the **Cormorant** (*Phalacrocorax carbo*). This bird introduces us to quite a new order, the *Pelecaniformes*, which contains, besides the Cormorants, the Pelicans, Gannets, Tropic Birds, Frigate Birds, and Darters. They are all aquatic birds, presenting much diversity of form and structure, yet all agreeing in the unique formation of the feet. The hind toe, which turns forwards, is joined by a membrane to the second toe, so that all four toes are completely webbed. All the species have a coat of down beneath the plumage, and the aftershaft is small or absent. The young remain in the nest until fledged. Two of the half-dozen families into which the order is divided have British representatives. The Cormorants (*Phalacrocoracidae*) have a small head, a long neck, and a long stout compressed bill with a hooked nail at the tip, while the upper mandible is furrowed, as in the Gannets. The metatarsi are short, compressed, and reticulated, the legs placed far back, and the throat and face more or less bare. The wings are short and contain eleven primaries, and the wedge-shaped tail, of moderate length, is composed of rigid feathers. The young are hatched naked, but soon become covered with dark down. Some thirty species of Cormorants are known distributed over most parts of the world, although



PLATE XI.—“AND ALL THE CREW SHE HAD WAS THAT ILL-OMENED BIRD.”

absent from the polar regions and Oceania. The Cormorant is a very widely distributed species, breeding more or less commonly on all the rocky coasts of the British Islands, from the Shetlands southwards. At a distance the Cormorant looks perfectly black, but when closely examined it will be found to be of a very different colour and a very handsome bird. The black plumage is richly loricated with metallic



HEAD OF CORMORANT (*Phalacrocorax*).

green and purple and bronze, the latter tint prevailing on the wings and back, the feathers on these parts being further beautified by a greenish black margin. The upper throat and the sides of the head are white, and the bare part of the face and throat is yellow. As the love season comes on the Cormorant acquires nuptial ornaments. The head and neck become sprinkled over with long white filaments, and above each thigh a tuft of snow-white plumes appears. The female is a little smaller, but the colours are similar to those of the male. There are fourteen feathers in the tail of this species. The Cormorant not only frequents the sea, but also often visits inland waters, and in some places even nests near them. Its favourite resorts during the breeding season, however, are lofty cliffs and rocky reefs. It is gregarious at this period, and some of its colonies are very extensive, as, for instance, here at the Farne Islands. In no other part of the British Islands can it be more conveniently or happily observed. The birds do not behave like the Gulls as we approach their rocky sea-laved home, but fly off to a distance and leave the nests to their fate. Certainly the place is not remarkable for cleanliness, and the smell and insanitary conditions generally are outrageous, the whole place white-washed with droppings and strewn with fragments of fish that emit a most unsavoury odour in the hot sun, and we are thankful for the stiff sea-breeze that at least makes the reef bearable. Amongst all this filth and litter the big nests are crowded in every suitable spot. They are more or less shapeless masses of seaweed a couple of feet high, the hollow at the top lined with pieces of green thrift,

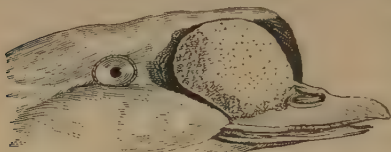
campion, and sea parsley. When placed in a tree or on a rock ledge it is generally a pile of sticks, the hollow lined with coarse grass and green herbs of some kind. The three to six eggs are a delicate blue green, but so thickly encrusted with lime that a good scraping is required to get at the actual colour of the shell. The Cormorant lives almost exclusively on fish, which are either caught by diving (at which the bird is a past master) or whilst swimming about with the head and neck below the surface. Whether it ever uses its wings under water seems doubtful, and has been denied by at least one competent observer. When gorged with food Cormorants retire to some sea-laved rock to digest their meal, and to dry their plumage, spreading wide their wings and remaining perfectly motionless for a very long time. It flies in a somewhat laboured way close to the water, descending with a splash. In winter it wanders far and wide in quest of its finny prey, still displaying the same sociable and gregarious instincts.

Before leaving the Farnes we may take the opportunity that is presented of meeting with the **Eider Duck** (*Somateria mollissima*). The Eiders (*Somateria*), of which there are four species and races, belong to the Fuliginulæ section of the *Anatidæ* (conf. p. 198). The males are easily distinguished by their long falcated scapulars and emerald green markings on the head, and both sexes by the feathers on the forehead and sides of the bill projecting in triangular patches nearly or quite as far as the nostrils. They are northern birds, but found in America as well as in the Old World. The Eider Duck is exclusively a dweller on rock-bound coasts. It only breeds in one English locality, at the Farne Islands. Northwards it is very generally dispersed round the Scotch coasts, including the Shetlands, the Hebrides, and St. Kilda, where I have taken its nest. Many pairs breed at the Farne Islands. The very handsome male Eider has the forehead and crown black with a medial white band, the hind part of the cheeks and the nape are clear emerald green, the throat, neck, back, scapulars, smaller wing coverts, the innermost secondaries, and the sides of the rump are white; the breast, flanks, abdomen, rump, larger wing coverts and secondaries are deep black. The female is chestnut brown, streaked with

dusky brown, and barred on the remaining body feathers with brownish black. The Eider rarely visits land at all except during summer; not only so, but it is seldom or never seen to fly over land, even to cross a headland, nor does it wander so far from its usual haunts as other Ducks generally do. It is a gregarious and social bird at all times, but in British waters is seldom seen in very large flocks. Even in summer the drakes swim in parties whilst the ducks are incubating in nests, often placed close together on shore, the latter joining their partners at stated times to feed. The females are exceptionally tame when sitting, but at other times they are shy and wary, while the males are always so. Eiders delight to feed as the tide comes in, swimming shorewards with it, keeping at last just outside the breakers. Here they form a pretty sight, riding buoyantly as corks on the big green waves, and diving clean through them as they are just about to turn and break on shore. At the least sign of danger, however, they quickly swim farther out to sea. They feed by day, seeking for small marine insects, crustaceans, mussels, small crabs, and so forth. The Eider can fly fast and strong, with regular and deliberate wing-beats, at no great height above the sea, and it is a most expert diver and swimmer. It is by no means a noisy bird, its ordinary note being a low *kurr*, but in the pairing season the drakes become much more garrulous, and then make a loud cooing noise as they swim round the ducks, bobbing their heads meantime. Towards the end of March the bigger flocks of Eiders disband more distinctly into pairs, and the females eventually come to land to see about making their nests. The eggs are laid in May and June. The nest is made on the ground amongst marine plants, on an exposed ledge of rocks, or in some cranny, and is formed of coarse grass, dry seaweed, heather, and scraps of herbage, and as the eggs accumulate a warm coverlet of down surrounds them. This is the famous down from which Eider-down quilts *ought* to be made, but in many cases are not! The five to seven eggs are olive green or greyish green, and very smooth. It is rather a curious circumstance, but when flushed suddenly from the nest the female discharges excreta over her eggs as she hurries away. The male does not visit the nest, but keeps on the

sea in the vicinity, where his mate joins him from time to time.

The **King Eider** (*Somateria spectabilis*) has been observed at the Farne Islands in summer, and I have seen it at St. Kilda at the same season, but there is no evidence of its ever having bred in our area. It is smaller than the Eider, and the orange-coloured bill has the frontal angles very broad, rounded, fleshy, and much elevated, forming a large compressed shield; there is a black V-shaped mark on the throat; the crown and nape are bluish grey, and the scapulars and in-



HEAD OF KING EIDER (*Somateria*).

nermost secondaries are black; the legs and feet are orange. The female resembles the female Eider, but the feathers on the forehead project beyond those on the side of the bill instead of reaching slightly more than half as far. The habits of this Eider are not known to differ from those of the preceding species.

Leaving the Farne Islands and continuing our journey north along the coast we shall eventually reach another famous breeding place of sea birds, the Bass Rock. Guillemots, Razorbills, Puffins, Gulls, Cormorants, and other species breed here, but we will specially devote ourselves to two others. One of these is the **Gannet** (*Sula bassana*). The Gannets (*Sulidae*) form the second of the two families with British representatives in the order *Pelecaniformes*. These birds have a conical, pointed, and powerful bill, the upper mandible furrowed and the edges of both serrated; the nostrils are closed and obsolete in the adult but open in the young. The metatarsi are short and stout, and the legs placed far back; the face and a small gular sac are bare. The wings are long, and contain eleven primaries; the tail is long and wedge-shaped. The young are hatched blind and naked, but soon become covered in downy dazzling whiteness. Some eight species are known, distributed chiefly over the warmer portions of the globe. The British species, however, breeds as far north as Iceland, another frequents the Cape Seas, a third Australian waters. All things considered, the British Seas are exceptionally well

frequented by Gannets, and some eight breeding stations are to be found in them. The best known of these is at the Bass Rock, although the colony at Borreray in the St. Kilda group is a much larger one. The adult has most of the plumage white, the upper part of the head and the hind neck strongly suffused with buff, the primaries and their coverts black. The bill is pale bluish grey with a tinge of green at the base; the bare space about the eyes, the lines on the bill, and the gular pouch are blackish blue; the legs and feet black, the scutellæ outlined with greenish blue. No British bird is perhaps quite so thoroughly oceanic in its habits as the Gannet. We have already alluded briefly to the soaring flights and plunges after food of this species (conf. p. 18), to which little need be added here. The bird never dives for its finny prey, always catching it by a headlong plunge from the air, and a flock of these birds so feeding forms one of the most interesting scenes that the seas surrounding a breeding station of Gannets can afford. The flight of the Gannet is powerful, graceful, and long sustained, the bird often going enormous distances to feed, returning to its headquarters when satisfied. During the nesting season it is eminently gregarious, assembling on the rock stacks, where it breeds in vast numbers. At the Bass the birds begin building towards the end of April and the eggs are laid in May and early June. The rude nests are made on the face of the cliffs wherever any supporting surface is to be had, on the table-like tops of rock stacks, as well as everywhere amongst the broken rocks and uneven ground at the top of the cliffs, but never very far inland from the actual edge. They are built as closely as they can be packed together in some parts, more scattered in others. These nests are bulky, shapeless structures, more like heaps of white-washed slime-covered refuse than anything else, the materials (seaweed, turf, stalks, moss, and straws) all being matted together and the cavity at the top being very shallow. Much confusion and struggling is constantly going on amongst the overcrowded birds, and their harsh cry of *carra-carra* is almost deafening. The solitary egg laid by this species is pale bluish green, but so thickly coated with lime and dirt as to conceal all or nearly all trace of the colour. The din and the fluttering birds

become quite bewildering as we walk amongst the nests or climb down the rugged parts of the cliffs to others lower down. The air is full of protesting birds, some with nest materials in their bills, gliding and swooping to and fro, whilst the ground at the top of the cliffs is just as crowded, odd individuals here and there standing fast asleep. Large numbers of eggs as well as young birds are taken for food; indeed at St. Kilda the Gannet harvest is a very important event in the lives of the lonely islanders.

Our second species we intend to glance at here is the **Peregrine Falcon** (*Falco peregrinus*), congeneric with the Hobby and the Merlin (conf. p. 85). The Peregrine I am glad to say still breeds on many of the maritime cliffs of the British Islands. It is to be hoped that the lighthouse recently built upon the Bass will not in any way disturb the birds breeding there. There are many scattered pairs on the English and Welsh cliffs, whilst in Scotland the birds become commoner, and similar remarks also apply to Ireland. The general colour of the upper parts is dark slate grey, becoming black on the head, and broad moustachial lines which extend downwards from the gape; the underparts are buffish white, spotted on the throat and upper breast and barred elsewhere with black; the bill is horn colour, the cere, legs and feet bright yellow. The female resembles the male in colour, but, as is usual in this order, is considerably larger than her mate. We must visit the Bass much earlier in the year, however, if we desire to see all the domestic arrangements of the Peregrine. It is the most dashing, as it is the largest, of the British Falcons, relentless and daring in pursuit of its prey, which here largely consists of sea-fowl. Elsewhere he will strike and take with consummate dash and speed birds of any species up to that of a Grouse in size. His power of wing is enormous, his command over himself in the air superb. Like most Falcons he is a silent bird for the most part, but when his nest is menaced he will, with his mate, fly round and round, uttering a harsh chattering cry. His favourite haunt is open country, whether inland or near the coast—moors and mountains in preference to timber. The Peregrine breeds in April. At the Bass the Peregrine makes its home in one of the least accessible cliffs. When I

visited a nest here many years ago, I found it on a narrow ledge of the rock just affording standing room some distance down the cliff and only to be reached with a rope. Below it the cliffs fell sheer like a wall for hundreds of feet with the sea dashing at the base. I had not got far down before the hen bird dashed out uttering the usual chatter, which soon brought the male upon the scene, and kept this up the whole time I stayed. Now and then the hen bird swept very close to me past the face of the cliff, and I caught a glimpse of a very savage sparkle in her bright black eyes and heard the rustle of her long wings as she went by. I made her repeat this performance several times by handling the single chick (clothed in dirty white down) which was in the nest. This nest was merely a hollow in the soft soil on the ledge, lined with a few bits of withered vegetation. Scattered round the nest were remains of birds, notably the legs and feet of a Puffin and many feathers. Numerous pellets, composed of fur, feathers, and small bones were lying about. The birds show nothing near so much anxiety when the nest contains eggs only. I have seen many nests of this Falcon since then, but all were much the same. The three or four eggs are creamy white in ground colour, mottled, spotted and suffused with reddish brown, brick red, and orange brown of various shades. The Peregrine is a resident in our islands, but wanders about a good deal during autumn and winter, often visiting very unlikely places, as we shall learn in the next chapter.

We will now strike across country and visit a few bird stations amongst the wild and lonely Hebrides—a vast wilderness of rock and moor, sea-loch and mountain. On most of these Highland sea-lochs of the Hebrides we shall find the **Red-breasted Merganser** (*Merganser serrator*), a common bird, and a specially interesting one, because it introduces us to yet another sub-family (*Merginæ*) of the *Anatidæ* or Duck family (conf. p. 115). The Mergansers resemble the Eiders and other diving Ducks in having the hind toe furnished with a broad lobe, but they have a very different bill, higher than broad at the base, tapering to the middle, slender and cylindrical beyond; there are no lamellæ on the lower mandible, but the edges of both are furnished with a series of very prominent serrations or

"teeth." In Scotland these birds are not inaptly named "Sawbills." Nine species are known, referable to three genera. The Typical Mergansers (*Merganser*), of which



BILL OF MERGANSER (*Merganser*).

there are seven species, have the culmen longer than the metatarsus, the "teeth" very prominent and inclining backwards at the tip of the bill. The Red-breasted Merganser does not breed anywhere in

England or Wales, being a winter visitor only, but breeds throughout Scotland and Ireland in all suitable localities. The adult male has the head (which is ornamented with a bushy crest) and upper neck greenish black shot with purple; the fore part of the back is black, the hind part black vermiculated with white; the tail is brown; a white collar, divided by a black line on the back of the neck, separates the black upper neck from the buff lower neck and upper breast; the remaining underparts are white vermiculated with black on the flanks, and margined with black on the sides of the breast; the outer scapulars and many of the wing coverts are white, the latter, tipped with black, forming two bars across the wing; the wings are brown and white. The bill and feet are red. The female has the head and upper neck reddish brown, the throat dull white, the lower neck brownish grey marked with white, the upper parts brownish grey marked with pale brown, the rest of the underparts white marked with grey on the breast and flanks. The Red-breasted Merganser is one of the most characteristic species of water birds in these wild northern sea-lochs, where, in summer, it may be seen swimming in pairs close inshore, diving at intervals and reappearing some distance away. Sometimes they come on to the rocks jutting out of shallow water where they stand upright like a Cormorant, and as likely as not flap their wings vigorously and begin to preen their plumage. In the pairing season the drake often chases the duck under water, diving after her or fluttering after her on the surface, their wings raising spray and foam. They are day feeders and very regular in their visits to certain feeding places, arriving just as the rocks begin to uncover and remaining as long as the

incoming tide permits. The flight is rapid, like that of a Duck, the wings making a loud whistle heard for a long distance. They swim and dive with great skill, disappearing head first with a leap like a Cormorant or a Shag, and often remaining below for a minute or more. Their ordinary note is a harsh and guttural *kurr*, heard most frequently during flight. Their food consists of fishes, crustaceans, small crabs, limpets, and whelks. Most of this food is obtained by diving, and each capture is brought to the surface, and after being disposed of the bird drinks and often rises, or stands as it were, in the water to flap its wings. This Merganser pairs for life, and although numbers of nests may be found within a small area, the bird can scarcely be regarded even as social during the summer. It breeds not only on the rocky coast, but also on the banks of inland pools. An island in a sea-loch is a favourite spot. The nest is often made under an overhanging rock or amongst long heath, and is a slight hollow strewn with a few dead leaves and bents, but eventually warmly lined with down. The eight to a dozen eggs are laid in May and June, and are of various shades of olive grey. The female alone incubates them, the drake never visiting the nest, and when the chicks are hatched she takes charge of them. During winter this bird becomes gregarious, often congregating on the sea in large flocks or seeking the sheltered bays and inlets during stormy weather. On some of the islands in these Highland sea-lochs, especially in the Hebrides, we may come across scattered colonies of the **Common Gull** (*Larus canus*), congeneric with the species already mentioned and belonging to the same section of the genus as the Herring Gull (conf. p. 237). This bird has little right to its trivial name, for, instead of being "common," it is one of the most local of the Gulls during the breeding season. It does not nest anywhere in England, is local in Ireland, but is generally distributed over Scotland, breeding not only on the coast but also in many inland districts. In winter, of course, it is much more widely dispersed. The adult in summer has the head and neck pure white, the back and wings bluish-grey, the quills broadly tipped with white, the outer five black

and white, two of them with a large white spot near the point; the remainder of the plumage is white. The bill is greenish-yellow. In winter the head and hind neck are streaked and spotted with brownish-grey. This Gull when nesting inland usually selects an island in a mountain lake or marshy tract; on the coast it similarly prefers a rocky islet in a loch. The most extensive colonies of this species known to me are on islands in Loch Dunvegan in Skye. Besides breeding in societies this Gull may also be found in scattered pairs along the rocky coasts. The birds congregate at their breeding stations late in April and the nests are commenced shortly afterwards. These are built in a variety of places, among crevices of the rock that protrude amongst the heath and herbage, in the grass, or on ledges of low cliffs. They are made of heather branches, turf, dry grass, seaweed, and stalks of plants, lined with half-green grass. Some are little more than hollows. The usually three eggs are laid in May or early June, and are olive and buff in ground colour, spotted and streaked with dark brown and brownish-grey. The birds are just as noisy and demonstrative at the nests as allied species. All these Gulls, I may here take the opportunity of saying, continue more or less gregarious through the autumn and winter, wandering far and wide along the coasts, visiting mudflats, sands, harbours, estuaries, and the like, and feeding not only on fish, but also on a great variety of marine animals. About these Highland sea-lochs and islets we shall also find the **Black Guillemot** (*Cephalus grylle*). These small Guillemots, of which there are four or five forms, not only present considerable difference between summer and winter plumage, but lay two eggs. They have also a shorter and slenderer bill than other Guillemots. The Black Guillemot is only known to breed in one English locality, in the Isle of Man, doubtless a few stray colonists from the Irish Coast. It is most abundant amongst the wild rocky areas of the West of Scotland, including St. Kilda, the Orkneys and Shetlands. The adult, in summer, has the whole of the plumage greenish-black, except a broad white patch on the wings. The bill is black, red at the base, the legs and feet coral red. In winter the prevailing

colour of the plumage is white, mottled with black on the upper part of the head, and barred with black on the scapulars, lower back, and upper tail coverts. The wings, however, remain unchanged in colour. This Guillemot is nowhere so abundant as its larger allies, and its colonies are never so extensive. Like the Razorbill it deposits its eggs in a covered site in holes and crevices of the cliffs. They are two in number, not so pear-shaped as those of the Common Guillemot and about half the size. They vary from buff to pale green in ground colour, blotched and spotted with rich dark brown, paler brown and grey. The habits of this species otherwise very closely resemble those of allied birds. It is a resident in our islands, and after its young are reared scatters far and wide over the seas. Here also on all these rocky coasts, especially such as contain plenty of caves and fissures, we shall not fail to find the **Shag** (*Phalacrocorax graculus*), congeneric with the Cormorant previously mentioned (conf. p. 240). It may be seen on every part of the British coast-line, but is, of course, most abundant where the shore is rocky, and only breeds in such a locality. The Shag is a much smaller bird than the Cormorant, and at a distance looks quite black. The general colour of the plumage is deep black suffused with green, which is exceptionally brilliant on the head and neck; there are narrow black margins to the wings and to the feathers on the upper back. The bill is black shading into yellow at the base, and the bare face is black. In the pairing season a long and conspicuous crest of recurved feathers is assumed for a short period. The habits of this bird are very similar to those of the Cormorant, but it does not visit inland localities, confining itself closely to the sea. It obtains most of its food by diving, disappearing at intervals with a headlong plunge, and is most expert under water, remaining under the surface for many seconds in its search for the fishes upon which it chiefly subsists. It is more or less gregarious, but may often be seen quietly fishing by itself. Shags are very fond of assembling on some sea-laved rock when their hunger is satisfied, basking and drying their plumage and remaining perfectly motionless for hours. The favourite breeding place of the Shag is a cave, but numbers of odd pairs nest in holes and fissures of the cliffs, wherever they

can find a suitable spot. In caves the big nests are built on the ledges and wedged in the fissures. They are bulky structures, used for years in succession, made of sticks, stalks of plants, turf, seaweed, lined with coarse grass and straw, and more or less coated with droppings and food refuse, which renders them filthy in the extreme. The three to five eggs are smaller than those of the Cormorant, but otherwise they are precisely similar to them (conf. p. 242).

Two birds of the Crow tribe haunting rock-bound coasts must now receive passing notice. The first of these is the **Raven** (*Corvus corax*), congeneric with the Carrion Crow and the Rook (conf. p. 55). Mention has already been made of this species, the largest of its order in our islands, and certainly the rarest of the Typical Crows. The Raven's great breeding strongholds are now the rock-bound coasts, here and there only in England, but much more commonly in Scotland. This species has the entire plumage black, glossed with blue and purple, the feathers on the throat being elongated and hackle-like. The female is a trifle smaller and her plumage is not quite so richly glossed. The Raven pairs for life and will continue to nest in one spot for years, provided it is left unmolested. It is one of the earliest birds to breed, the eggs being usually laid in February, March, or April, and before the snow has quite melted from many of its mountain haunts. A site for the nest is chosen on some lofty inaccessible cliff washed by the sea at the base in marine districts, but inland a huge storr or side of a glen is selected. The nest is a great pile of sticks, often the accumulation of years, and many of them bleached in the service; the lining consists of turf, moss, wool, fur, and hair. The three to seven eggs are bluish green or olive brown, marked more or less freely with various shades of olive brown, specks of dark brown, and underlying ones of grey. Both sexes incubate these, and in the pairing season the old birds may frequently be seen toying with and chasing each other high in air. The Raven will eat almost anything, and for the most part is a shy, wary, and solitary bird. Our second species is the **Chough** (*Pyrrhocorax graculus*). The sole member of its genus, the Chough is readily distinguished by its long curved vermilion-red bill, legs and feet. It is one of the rarest

and most local of our indigenous species, though formerly much commoner and more widely dispersed. So far as I can ascertain the Chough still frequents the rock-bound coasts of Cornwall and Lundy Island. A few are still said to breed in Wales and on the Isle of Man, but it becomes more frequent along the west coast of Scotland; and the same remarks may apply to Ireland. The Chough has the entire plumage glossy blue black, loricated on the wings and tail with purple in addition. Choughs are gregarious and breed in colonies, like Jackdaws. They often circle in the air in fluttering crowds like that species, and similarly congregate on the pastures in quest of food. They are shy and restless birds, walking about in the usual Crow-like manner, and feed on worms, grubs, insects, and grain. Their nests are built in clefts and fissures of the lofty cliffs, and naturally vary a good deal in size according to the accommodation presented. They are made of sticks and stalks of plants, pieces of turf and seaweed, and are lined with dry grass, roots, wool, and fur. The four to six eggs are bluish or creamy white, blotched and spotted with various shades of brown and grey. Many nests are placed close together, and when the colony is disturbed the black birds pour out of their nesting holes and become very noisy and excited, uttering a Jackdaw-like note.

We may fittingly conclude the description of the bird life in this special haunt by a visit to the famous St. Kilda group to examine the economy of the Petrels. The Petrels, with which are included the Fulmars, the Shearwaters, and the Albatrosses, constitute the order *Procellariiformes*. They may at once be distinguished from all other living birds by their tubular nostrils. They have a long and hooked bill, separated into plates or sections by grooves, and the under mandible is truncated. They all have webbed feet and, in most cases, a very minute hind toe; in some forms, however, the hind toe is absent. The wings contain eleven primaries, and the body feathers have a more or less developed aftershaft. About a hundred species of these thoroughly pelagic birds are known, distributed over most parts of the seas and oceans of the world. Four fairly well-defined families are recognised. The first of these contains the Fulmars and Shearwaters (*Puffinidæ*), each of which constitute a separate

sub-family. The principal external character of the family is that the nostrils are nearly or quite united above the culmen. The first primary is equal to or longer than the second. The Fulmars (*Fulmarinæ*) are distinguished from the Shearwaters by the presence of lamellæ on the sides of the palate. The best known member of this group is the **Fulmar** (*Fulmarus glacialis*). Its only important breeding station in the British Islands is at St. Kilda; a few are said to breed elsewhere off the Scotch coasts, but the evidence is vague. This species has the head and neck almost white, the upper parts pale grey, obscurely marked with white, the wings brown, the underparts white. The bill is greenish yellow; the legs and feet flesh colour. Except in the breeding season the Fulmar keeps out to sea, where it chiefly subsists on cuttle-fish, mollusks, and whale blubber, whilst in summer, at all events, large quantities of sorrel are eaten: small nuts are sometimes taken from its stomach. The bird flies very much like a Gull, is very buoyant, and has great command over itself in the air. It swims well, and is much more diurnal in its habits than the Typical Petrels and Shearwaters. The principal breeding place of the Fulmar at St. Kilda is on the grandly majestic cliff called Connacher, a spot where half a mountain twelve hundred feet high falls sheer down into the Atlantic. The bird is gregarious enough, congregating here in tens of thousands to rear its young. The breeding season commences about the middle of May, and the bird probably pairs for life and uses the same nest year by year. The whole face of the cliff, the ledges, crevices and hollows, the grassy downs and slopes on the shoulders of the actual precipice, are packed full of nests. The favourite spots are where a depth of soil allows the bird to burrow for a short distance and to make a hollow in which it can sit more or less concealed. The hollows and depressions are lined with a little grass in some cases, but in others this slight provision is omitted. The single egg is white and has a very pungent smell. No words of mine can hope to convey the faintest idea of the wonderful scene these cliffs present when the Fulmars are assembled upon them in summer. Let the reader picture to himself a heavy snow-storm, when the flakes are unusually large and slow-falling, and let him imagine that each one of these flakes is a

Fulmar, and he may form some notion of the picture. The rocks are as densely crowded with birds as the air; and when the birds leave the cliffs in frightened masses it looks as if the face of the rocks were falling outwards, although instead of tumbling down into the sea they split up into clouds of birds that darken the air with their myriad wings. The whole scene is practically a silent one; nothing is heard but the rush and murmur of uncounted wings beating the air.

The **Manx Shearwater** (*Puffinus anglorum*) also breeds here in numbers almost as amazing. The Shearwaters (*Puffinina*) have no lamellæ on the side of the palate. The Typical Shearwaters (*Puffinus*) number about a score of species, and are characterised by having the bill slender and compressed, the tubular nostrils directed forwards, and the metatarsi compressed. The wings are long, narrow, and pointed, the tail, of moderate length, is graduated, and contains twelve feathers. Five species of these birds have been met with in the British seas, but only one of them is known to breed within our limits. The Manx Shearwater breeds on many parts of the British coasts, but nowhere on the east coast of Scotland, or on the east and south coasts of England, so far as is known. Its most important breeding station is in the St. Kilda group on the island of Soay. The adult has the general colour of the upper parts black, the underparts white. Its favourite nesting places are islands with a good ocean prospect, where there is plenty of soft soil; or a rock-bound coast, in which the cliffs are broken up into rugged downs and turf-clad hollows. Many scattered pairs breed along such coasts, but on Soay they assemble in thousands. The Shearwater breeds in a burrow, usually made by itself, the length of which is from four to a dozen or more feet. At the end a slight nest of dry grass is formed, but often this provision is omitted, and here the hen in May or June lays a single pure white egg. The birds are not seen much during the day, keeping close to their burrows, but at dusk they come out in force and swarm over the surrounding sea to feed. All night they are active, going from and returning to their nests, and making a babel of sounds which may be likened to the syllables *kitty-coo-roo* oft repeated. At the entrance to each tenanted hole a few droppings invariably occur. The

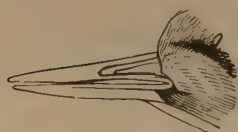
Shearwater only seems to utter this note on land, either when flying to and from its burrow, or when sitting inside it. It probably sleeps in it all through the year, coming out at nights to feed. The two other species of indigenous Petrels are included in another family of the order, the *Procellariidae*. In these Petrels the second primary is the longest in the wing, besides which there are various important anatomical differences. The Typical or Storm Petrels (*Procellaria*) are all small birds with a long pointed wing, the metatarsi are reticulated, and, as a rule, longer than the middle toe; the hind toe is almost obsolete. The most familiar species is the **Stormy Petrel** (*Procellaria pelagica*). It is not known to breed anywhere on our eastern seaboard, or on the south coast of England east of



THE STORMY PETREL AT HOME.

Tor Bay in South Devonshire. Elsewhere there are numerous breeding places (known and unknown) throughout the British coast-line. The Stormy Petrel, the smallest known web-footed bird, and no bigger than a Sparrow, has the general colour of the upper parts greyish black, the greater wing coverts and innermost secondaries with small white margins; the sides of the rump and the upper tail coverts are white, the latter tipped with black; the underparts are sooty brown. This tiny Petrel may often be seen flitting over the waves by those whose business or pleasure takes them much upon the sea. It is abroad by day as well as by night; whether it ever swims I am unable to say; but it is lively enough above the waves, fluttering up and down the smooth face of the big rollers and dropping its legs from time to time to patter on their green surface. Its food resembles that of allied species. It is more or less gregarious during the breeding season, often nesting in colonies, and probably pairs for life. It makes a slight nest of dry grass (sometimes dispensing with a nest altogether) in some Puffin's burrow, rabbit earth, or under loose rocks and stones, amongst masonry, and so forth. The single egg is white, with a ring of minute dust-like red spots round the larger end. The second species is the **Fork-tailed Petrel** (*Procellaria leachi*), congeneric with the last. There are few known breeding places of this Petrel round the British coasts, and by far the most important one is at St. Kilda. A few birds breed in various parts of the Hebrides, and in Ireland on the Blaskets, off co. Kerry. The Fork-tailed Petrel is nearly twice the size of the Stormy Petrel. The adult has the general colour of the upper parts greyish black, suffused with brown on the wing coverts; the scapulars, some of the secondaries and the greater wing coverts have small white margins; the sides of the rump and the upper tail coverts are white, the latter tipped with brown; the wings and forked tail are black; the underparts greyish brown. The general habits of this Petrel closely resemble those of the last named. It breeds in small colonies, making a scanty nest of grass and roots at the end of a burrow from two to five feet or more in length. Sometimes several nests are made in one common burrow. I remarked at St. Kilda that the burrows which contained nests had a little dry grass strewn

at the entrance, and in one burrow the egg was resting on the bare ground. The birds remain on their nests until dragged out. The single egg is white with a zone of dust-like red spots round the larger end. On some of the rocky coasts, especially in autumn, less frequently in spring and in winter, the **Turnstone** (*Strepsilas interpres*) may be seen. It is a member of the Plover family *Charadriidæ*. The Turnstones (*Strepsilinæ*) receive sub-family rank be-



BILL OF TURNSTONE
(*Strepsilas*).

cause they have no dertrum to the bill, and the nasal orifice extends beyond the basal fourth of the upper mandible. Two species are known, contained in a single genus, and are practically cosmopolitan. The plumage of the Turnstone is a mixture of black, chestnut and brown above,

white below. It reaches us in September, and passes north again in April. This pretty little bird runs about the beaches in a lively manner indulging in the peculiar habit of turning over shells, pebbles, and other objects in quest of small marine animals lurking beneath them. It is said sometimes to swim, and may repeatedly be seen to wade. It flies in a somewhat deliberate way, its chequered plumage showing very distinctly, often uttering a shrill *keet* as it goes. It breeds in the arctic regions in June, making a slight nest near the sea, and laying four eggs, olive or buff, marked with brown and grey. On the sea, off many of these rock-bound coasts, the **Great Northern Diver** (*Colymbus glacialis*) occurs; it is congeneric with other Divers previously mentioned (conf. p. 122). Although sometimes suspected to breed in the Highlands, no direct evidence of the fact has been obtained. The body plumage closely resembles that of the Blackthroated Diver, but is more spotted. There is a band of white stripes on the throat, below which is another and similar band. In winter plumage the upper parts are blackish brown, the underparts white. Its habits are similar to those of allied birds.





A BIRD STATION IN ROSS-SHIRE.

HAUNT XI

IN THE HAUNTS OF MEN

CONTENTS : The House Sparrow—The Starling—The Rook—Martins and Swifts—Swallows—The Jackdaw—The Ring Dove—The Peregrine Falcon—The Black-headed Gull—Bird Life in Public Parks—The Fleeting Bird Visitors to the Haunts of Men—Methods of Observation—Field-Glasses—Conclusion.

WE have followed birds into a great diversity of haunts, now it may prove interesting to devote our concluding chapter to the species that more specially frequent the haunts of men, or that visit them under a variety of more or less abnormal circumstances. Apart from the actual interest which these birds excite, there are other facts intimately connected with their presence in such localities bearing very closely upon the important phenomena of avine dispersal, change of habit, adaptability to new surroundings, and so forth. It is very interesting, of course, to see such a bird as a **House Sparrow** become so completely familiar with man. All of us who may be fond of birds cannot fail to remark the ready way in which this species makes itself so thoroughly at home. It is now the commonest town bird we have, but how many of us give a thought to those biological questions with which it has become so intimately associated, as we watch the pert little creatures sitting on the housetops, hopping about the crowded streets, impudent, at home, ubiquitous. The Sparrow has now become so close an attendant upon civilisation that it may almost be regarded as a human parasite. Even its distribution in England alone is vitally influenced, controlled by the presence of human habitations. Where they are not it is almost useless to look for the Sparrow. He follows man everywhere, and his migrations abroad are even more interesting than those at home. According to Lyell the Sparrow first made its appearance on the Irtish, when the Russians commenced to till the

soil and grow grain. About 150 years ago it spread up the Obb Valley, and four years later had emigrated five hundred miles still farther to the east in this river valley. Thence it pushed onwards through the Yenesei to the Lake Baikal district, and is now abundant throughout Siberia, within these limits, wherever civilisation has spread. There are other and more serious aspects about this abnormal distribution of the Sparrow. The very latest information respecting the Sparrow in America says that the bird is thoroughly and ineradicably naturalised in all settled districts, except a few of the most extreme outposts. It has become firmly established in many other parts of the world. Taken in the first place from sentimental motives, as a reminder to the settler of his old home, it has bred and multiplied apace in every city and village, so that one is confronted with his familiar chirp and his pert little form as commonly in New York as one is in London. But the results in almost every case have proved disastrous, and, possibly, wherever he has been taken or has introduced himself abroad he is fast becoming a nuisance, and, what is far worse, is ousting many interesting birds from their ancient homes, usurping their place in the fauna, and proving himself a potent factor in their gradual extermination. On economic principles too his introduction or acclimatisation has been a mistake, for his inroads on the grain and other crops have become as serious as, or even more so than, in the old country. One cannot but admire his extraordinary aptitude for adapting himself to circumstances; he is the most familiar instance of this trait among birds. Not only so, but his artificial conditions of life permit him to increase and multiply in a way nature never intended. He breeds almost all the year round, and the hordes that descend upon our grain crops are being constantly increased by the town-bred rascals that must join in the general pillage of the unhappy farmer. Apart even from this, the Sparrow is a very undesirable neighbour for those other small birds that we take so much delight in welcoming and encouraging round about our homesteads. The poor little Martins are ruthlessly driven from their homes under the eaves, and the quarrelsome aggressive rascals dispute relentlessly the advances of other little birds that would undoubtedly

become more familiar with man in many places were it not for them. The Sparrow is also an example of how a bird can change the site and materials of its nest. It will stuff its untidy home into every conceivable nook, and fabricate it from materials that even a marine store would fail to supply. Notwithstanding all this, I must admit to a sneaking admiration of him, and readers, I am sure, will agree that the touch of wild nature that he introduces into hot crowded cities could ill be spared, however much we could forego his company elsewhere.

In many places the **Starling** is almost as much a bird of the town as the House Sparrow. This bird, too, has increased in a most remarkable way of recent years, and shows a strong tendency not only to become more a follower and attendant on man, but to adapt itself to what I may term civilised conditions of existence. His spread into many districts may be traced to man; for human habitations afford abundant and secure nesting places, where his natural enemies, the Hawks and Falcons, dare not venture, and much food can be obtained in their immediate vicinity, on lawns, about manure heaps, and so forth. A Starling's nest in a town nowadays excites but little interest, and yet there are places where, within the memory of men now living, the bird was once as rare as the Dodo! The Starling must be regarded as one of the special birds that dwell abundantly in the haunts of men, and as a species that has been exceptionally apt and ready to avail itself of new conditions of life, and to turn those new conditions to its own advantage. It is a harmless bird, however, and one can watch its increase with no misgivings. He makes himself rather a nuisance sometimes by loosening tiles, stopping drain-pipes, and so forth, but his pleasing and varied song, almost perennial, his lively ways and handsome plumage make atonement for it. The Londoner, I believe, is specially fond of his Starling, and who may object?

It is very remarkable how attached some birds are to old haunts, whilst others at the first change that threatens betake themselves to other quarters. The **Rook** is one of these. It is a very common occurrence to find the remains of a rookery left stranded amongst a waste of bricks and mortar, the poor birds clinging to the trees of their

ancestors, and building their big nests high up in the branches above ceaseless traffic below. London has many such rookeries, and in not a few cases colonists have started offshoots from them in trees in quiet squares and so forth, with a town-bred instinct that seems incapable of change. One would think that the birds in these rookeries would desert them, if for no other reason than the long distances they have to fly in many cases to obtain food. But the nostalgic instinct seems supreme, and for time out of mind the birds continue to frequent the same haunts. The young are as attached to the place as their parents; town-bred birds they are, town-bred birds they remain, carrying on the traditions of the rookery from one generation to another. On the other hand, there are birds that quickly desert a place when changes are made. In Gilbert White's day Sand Martins frequented the dirty pools of Whitechapel, and he thought they bred in scaffold holes in buildings near. He also tells us that the House Martin nested not only in the Borough, but also in the Strand and Fleet Street, and that the Swift frequented the Tower, seeking its food over the river just below London Bridge, others haunting the churches in the Borough. These birds are not denizens of the "city" now, but all continue to visit Greater London, and will doubtless go on doing so until the jerry builder becomes too aggressive. Away from London, however, there are many country towns where all three species are common birds, the Swifts breeding in abundance about the grand old cathedrals and churches, the Martins and Swallows haunting sheds, stables, and the eaves of houses often in busy streets, especially on market days. All these birds are instances of a changed habit, for there can be no doubt that at one time they had of necessity to breed in or on rocks and in hollow trees, as they continue to do in countries where human habitations are not available. Our little friends must assume an increased interest if we bear such facts in mind as we watch them threading the streets and byways of civilisation's haunts.

We were speaking of Rooks, but there is another member of the Crow tribe quite as homely as they. This is the Jackdaw. Where is the cathedral that has not its colony of cackling **Jackdaws**? They are quite a part of

these ancient piles, probably tenants as old as the dead that sleep within them. And here again we have another instance of a decided change of habit, absolutely demonstrated before our own eyes. There are Jackdaws that live in colonies on the sea-laved cliffs or inland rocks; there are others equally at home amongst hollow trees. These unquestionably were the Jackdaws' ancient nesting sites, from an era when the bird took to breeding in a covered site at all; and that it is an adopted habit is proved by the fact that most other Crows rear their young in the open. But as buildings began to be made, as an age of architecture dawned, the bird gradually availed itself of the new situations to its own advantage, and has not only increased enormously in number, but has also been able to extend its area of distribution in a corresponding manner. The Chough has decidedly missed his opportunity; he remains in his cliffs, and dwindles in numbers; the more aggressive, shall we say intelligent, Daw, thrives and profits by his exceptional enterprise and unusually developed power of adaptability.

The **Ring Dove** is another very interesting instance of this latter trait. Time was when the Ring Dove was probably utterly unknown in London; now it bids fair to become one of London's most familiar birds. True, we have the colonies of Domestic Doves, mixed breeds of every conceivable colour almost, that throng most of our public buildings, and are a very pretty feature in city life; but the Ring Dove, of all Doves, is a bird of the country, wild, shy, and untamable as was always thought. It is now not only an abundant denizen of Hyde Park and Kensington Gardens, but scattered pairs take up their residence in almost every west end square where the trees are sufficiently tall and dense to afford it shelter. There can be little doubt that these latter colonists are descendants of the Park birds with a strong hereditary strain of tameness and familiarity. To a person whose sole experience of the Ring Dove has been gained in the country these half-tame birds are a startling novelty. Nowhere else in the land can this Dove be watched with such unsuspecting tameness and utter disregard of man's presence. To see the big birds waddling about the grass, literally playthings for nurse-maids and children, or perching on the hand

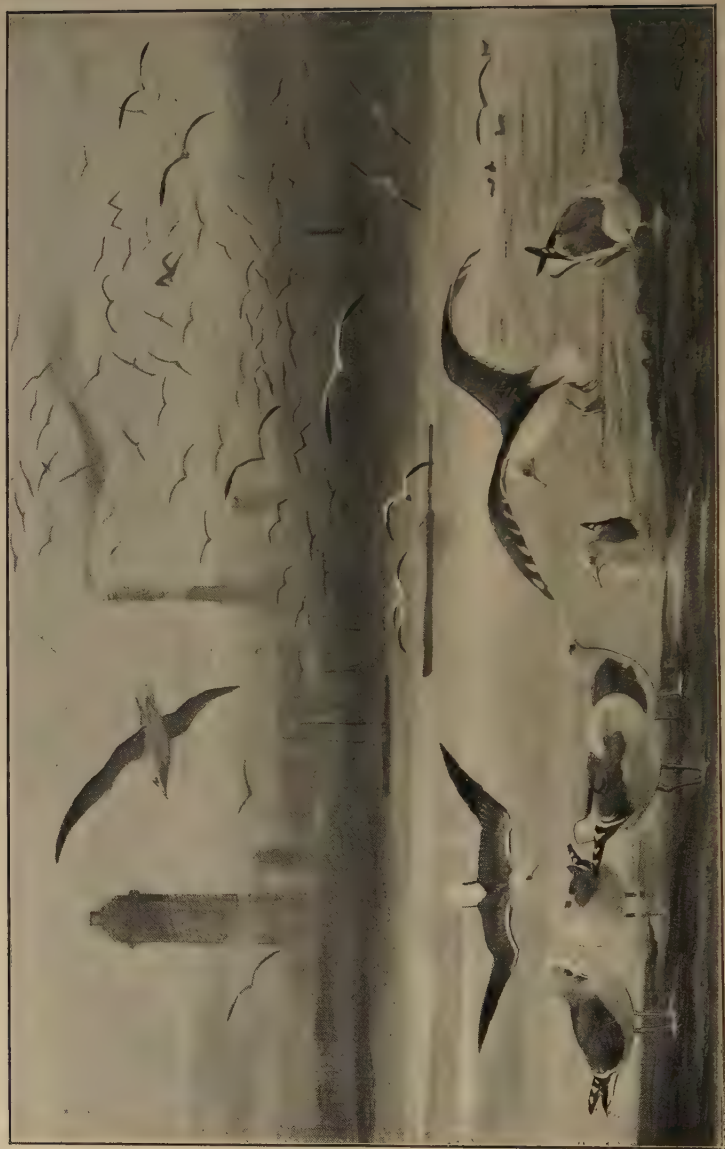


PLATE XII.—GULLS ON THE THAMES. A WINTER SCENE NEAR WATERLOO BRIDGE.

that feeds them, is a living object-lesson of how tame the most timid birds can become if they are left unmolested and taught by experience to fear no danger. Little less instructive and amusing is the way the Hyde Park Sparrows crowd to the old gentleman who daily feeds them, summoning them to the feast by a signal whistle which the birds fully understand. Such sights as these make one think that there is hope for the Britisher after all, and that the legend of the brick and the stranger is no longer applicable. If one wanted more instances of the way wild birds may be tamed and rendered familiar by freedom from molestation, the Moorhens in the Serpentine, the Gulls and many other inherently shy and timid species would readily supply them.

The Sparrow and the Starling remain the two most typical birds of the town and the haunts of men; others, as we have seen, are more exceptionally identified with city life. There now remain those species that pay more or less irregular visits to towns and cities, usually during winter or the seasons of their annual migrations. Even such a wild bird as the **Peregrine** is by no means an absolute novelty in London, attracted possibly by the swarms of Pigeons and tempted downwards from the sky in the hope of an easy meal, yet too timid after all to make the final swoop athwart the crowded streets and squares that would appease its hunger. It buoyantly descends as far as the gilded cross on the dome of St. Paul's, rests there for a time unnoticed by the hurrying thousands of human folk below, and again takes wing towards the encircling green of the countryside in the hazy distance. Other and smaller Birds of Prey are perhaps more frequent visitors. In certain provincial towns the Peregrine will stay most of the winter. It doubtless frequents lofty spires as most closely resembling the cliffs and rocks of its more usual haunts.

The **Black-headed Gull** must now be included as practically a regular winter visitor to London. We naturally feel surprise nowadays when we read those ancient records which tell us that the Kite was formerly so abundant in the streets of the metropolis that it was regarded as a useful scavenger, just as its congener the Black Kite is at the present time in many a city of warmer lands. But by no

stretch of imagination can we picture any feelings of wonderment amongst posterity concerning the abundance of the Gull, not only on the Thames but in many other parts of the great city. The Gull has come to stay, and we doubt not will not only increase in numbers as time goes on, but become more and more a feature in the natural history of the Metropolis. Long residence in the country has prevented me from seeing much of these London Gulls until last winter, when they were, however, exceptionally abundant. Not only did they crowd the Thames, far beyond Westminster, but I observed small parties and odd birds even in such unsavoury localities as the canal basin at Paddington. The birds are evidently spreading. The ornamental waters in the west end Parks had a fair share, and doubtless the birds in time will find their way to every pool of any size in London. Indeed, judging from analogy, I would not care to say where they will not eventually appear. They are voracious birds, food is a great inducement, and London crowds are very hospitable in these matters. Even the London errand-boy will share his humble dinner with the birds; whilst the aristocratic western thoughtfully fills his pockets with food for them. Birds readily respond to encouragement of this kind. What impresses me most about these Gulls in London is their extraordinary tameness. It is the case of the Ring Doves over again. I have had much experience with the Black-headed Gull during winter, and have seen it congregating in thousands in various harbours, especially when sprats were being landed, yet there was always a certain amount of wariness, shyness that prevented the birds becoming very familiar. They would no more have taken a proffered sprat from my hand than they would even approach within arm's length. Yet the novel and charming sight could be witnessed almost any day in London of these birds seizing scraps of food from the fingers and exhibiting a tameness not excelled by the Sparrow itself. The sight of these Gulls along the Embankment and by the various Thames bridges most closely resembles the stirring scenes I have witnessed at the breeding places of these birds. There they are tame enough, or rather their natural wariness is overcome for the time by their greater anxiety for their eggs and young. One can scarcely call this

familiarity, and is very different behaviour from the ways of the same species in London.

Of course if we include public parks in our haunts of men the list of birds will be very considerably increased. There the Robin, the Thrush and the Blackbird, the Hedge Accentor and the Blue Titmouse may be regarded as fairly representative, but there is scarcely a reader that could not add many more to the number, according to the special circumstances and locality. In many cases birds are transient visitors only to the haunts of men, they are not what we may term indigenous to such places, neither do they stamp them with their special individuality in the manner that the Sparrow or the Starling does. These therefore will be left out of our consideration here.

There can be no doubt that the presence, more or less fleeting and fitful as it may be in most instances, of birds in a human community helps considerably to encourage observation and a love of nature amongst the masses. In many cases it has been the medium of introduction to nature study on a much wider basis. The opportunities for this study, and especially for the study of bird life, were never more favourable than they are at the present time when travelling is such an easy matter. The study of birds can be taken up almost anywhere and at any time; it is a continuous study, unbroken by seasonal changes, uninfluenced by locality. No elaborate apparatus is required, and there are many ways of studying birds without any necessity for shooting and collecting them. The life histories of birds are full of romance, replete with wonder; their nests and eggs form a philosophy in themselves. The migration of birds presents a field for intelligent study that as yet seems practically inexhaustible. Even the dweller in cities can find much material for careful investigation concerning the economy of such common birds as Sparrows and Starlings in directions already indicated above. The Starling is a common bird in many haunts of men; it would be of very great interest to know whether the bird ever rears more than one brood in a season. The change of habits often taking place amongst city birds also requires careful watching and is a most interesting branch of ornithological study. When we get into the varied haunts of bird life elsewhere the interest of course widens

accordingly. Armed with nothing more deadly than a note-book and a binocular, supplemented with a camera, if he desires to make permanent pictorial records of his observations, the student is fully equipped for his fascinating work among the birds. Let the glass be the best that can be obtained. I strongly recommend the Ross Prism Binocular of a magnification of twelve diameters as the most useful instrument that modern science has devised for the field naturalist. The difference between a good glass and a poor one amounts to this. With the former much will be observed, particularly with regard to shy and big birds, that would be quite overlooked with the latter. The pleasures of observation are also enormously increased as is also the scope of one's study. I have recently made very exhaustive tests with this prism glass and have satisfied myself of its special merits for use in field ornithology. One of the most essential factors in successful field work is the correct identification of birds. Before we study the ways and doings of Birds we must know those birds by name. They must be correctly identified. With the information furnished in the preceding pages, aided by a good glass, this need not, I hope, be a very difficult matter, even to the tyro. For the rest, patience and perseverance will suffice.



GLOSSARY

Aftershaft.—Technically termed a hyporhachis; a usually small secondary plume attached to the inner surface of the quill near the base of the ordinary feather. It varies a good deal in the amount of its development in the various avine groups, being specially small in the Passeres, abnormally large in the Cassowary, and is generally concealed by the ordinary plumage.

Cere.—The soft skin covering the base of the upper bill in various birds.

Culmen.—The dorsal ridge of the upper bill.

Dertrum.—The swollen hook in which the tip of the bill often terminates.

Genys.—The prominent ridge or angle of the lower bill formed by the united halves of the under jaw.

Humerus.—The upper arm bone in a bird's wing.

Lores.—The space between the eye and the base of the bill.

Metatarsus.—That portion of the foot which reaches from the ankle-joint to the base of the toes.

Phalanges.—The bones of which the toes or digits are composed.

Speculum.—The patch of bright feathers on the secondary feathers in the wings of Ducks, sometimes termed a mirror or "beauty spot."

Tibia.—Forming with the Fibula "the drumstick," that portion of the leg between the ankle and the Femur or thigh.

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